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of the

American Association of Nurse Anesthetists

AUGUST
1942

VOLUME 10 NUMBER 3

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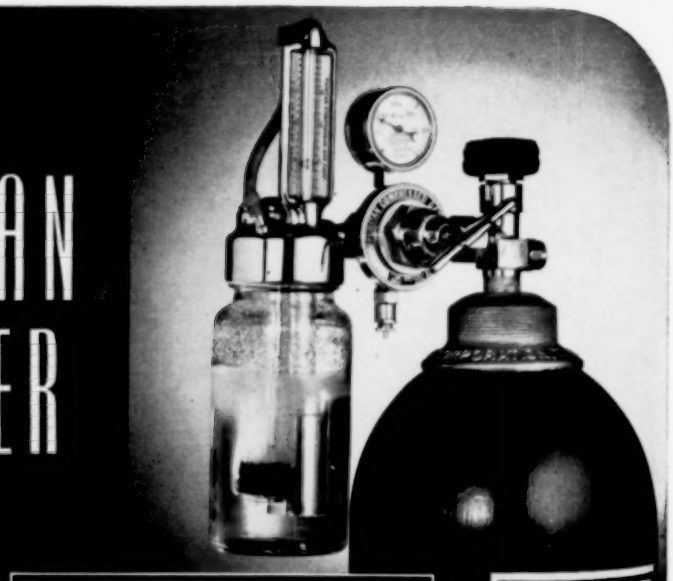

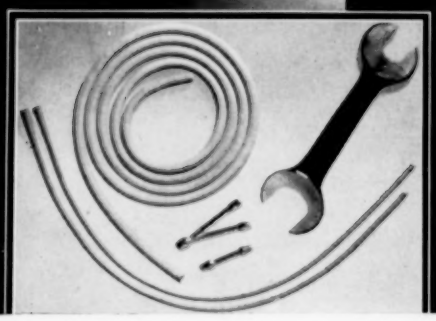

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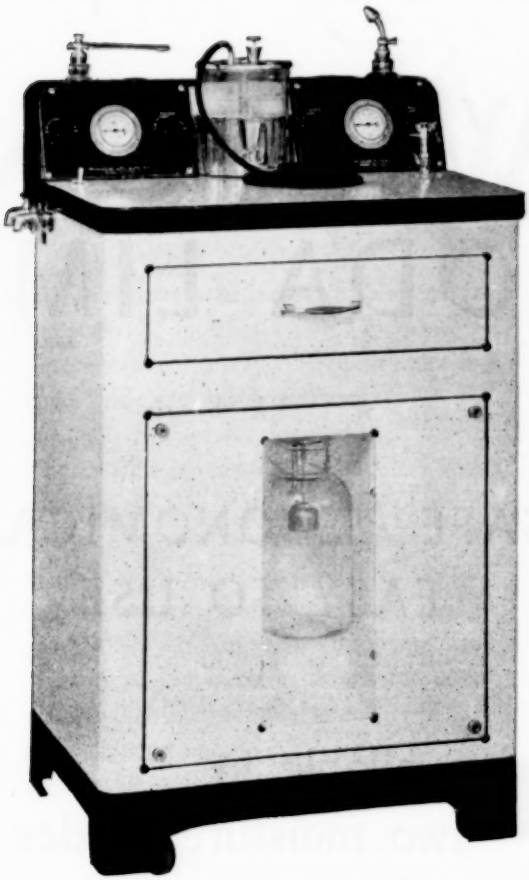

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EDITORIAL

Individually and as an organization we must give serious thought to the services which are being rendered by the nurse anesthetist today to the armed forces and to the civilian hospitals. We must strive to meet the needs of both groups with a minimum of interruption in service. Standards need not necessarily suffer if each one conscientiously assumes the responsibility of doing her full part. To serve in this emergency is not only a patriotic duty but will protect and uphold a fine tradition of service which the nurse anesthetist has built in the past thirty years.

In considering the problems involved in meeting the demands for nurse anesthetist service, the group as a whole may be divided into three classifications:

1. The married nurse anesthetist who can arrange her affairs to return to the field.
2. The anesthetist who is employed, but because of age, physical condition or marriage is not eligible for service with the armed forces.
3. The anesthetist who is eligible for service with the armed forces.

Those in Group 1 should let it be known that they are available and they should be willing to give continuous service. During the depression many married women were employed in full-time positions and found it not too great a hardship. Talent in a highly specialized field should not be wasted by being diverted to activities which can be taken care of by other groups. Any service rendered by the married nurse anesthetists during this time will be greatly appreciated and will reflect credit to them and to our profession.

Group 2 will find it a bit difficult to adjust to the changes that are inevitable. Near relatives and friends will be leaving for duty with the armed forces and this group will remain at home working with decreased personnel and limited time for social activities. This group will render a great service to our country if they lay aside personal convenience and preferences and go about their daily routine willingly and cheerfully. The decrease in personnel in the anesthesia department will have to be compensated for by longer hours and it will be necessary to give more thought to the organization of the department in order that the services may be stretched as far as possible. The superintendent of the hospital and the surgeons should be consulted on ways and means of meeting the situation and a cooperative plan should be worked out which will adequately protect the service.

There is danger, however, unless careful plans are made, that the anesthetist will be asked to work to the point of physical and nervous exhaustion. Long hours of night duty take their toll and while it is possible to work longer hours in the day time, it is impossible for an anesthetist to lose sleep night after night and continue to remain on top. Some anesthetics must be given at night, but it is not always necessary to call an anesthetist for long hours of analgesia on the obstetrical division, and many times the cases in surgery can be dovetailed so that two anesthetists will not have to be on duty at one time.

If after this war is over it can be said that "the nurse anesthetist did an excellent job," we must do two things:

(1) We must always bear in mind that the administrator of the hospital is under tremendous pressure and cannot alone work out the details of all departments. Whenever possible the

nurse anesthetist should relieve him by adjusting hours and efficiently taking care of the department until such time as it is necessary for matters to be brought to his attention.

(2) Before any anesthetist makes a change in position she should unselfishly consider what effect it will have on the department in which she is employed. An anesthetist who leaves a position except for urgent reasons may gain a temporary financial or other advantage, but the quality of nurse anesthetist service as a whole will suffer because of interruption and constantly changing personnel. Let us not be accused of taking advantage of an emergency but rather let us discuss freely with the superintendent any problems which may arise to work out an effective and satisfactory adjustment.

Group 3. Several months ago we were not sure whether the anesthetist joining the armed forces would be assigned to anesthesia service in the Army or Navy. Anesthetists who had been giving anesthetics for years felt that it would be a misapplication of talent to enter the armed forces and do general nursing when the civilian hospitals were so badly in need of anesthetists. Furthermore, the anesthetists, proud of the work that has been done by nurses in the field of anesthesia, sustained a feeling of hurt that the field was not being given proper recognition.

At this writing the anesthetist going into the armed forces still must join as a nurse but the need for anesthetists is such that we feel certain she will be assigned to anesthesia. Furthermore, we have every reason to believe that the anesthetist will be promoted as quickly as the individual's ability warrants it.

That appropriate recognition may be accorded to our group is suggested by the letter written by Colonel Julia O. Flikke, Superintendent of the Army Nurse Corps, to the Association, as published in the May, 1942, issue of the Bulletin, from which we quote: "However, under existing circumstances it seems quite necessary and highly desirable to secure as great a number of qualified nurse anesthetists as possible for the Army, and a recommendation for special emergency regulations to provide for the appointment of qualified nurse anesthetists in an appropriate grade has been forwarded to the Adjutant General." We sincerely hope that an appropriate grade will be granted the anesthetist by the Adjutant General, but whether or not this is possible (bearing in mind that our problem is only one of countless others facing the Adjutant General) this is our war and we as nurse anesthetists must place our services at the disposal of our government and our boys in the Army and Navy must be taken care of. The younger anesthetists must be relieved for duty with the armed forces and the older anesthetists must put their shoulders to the wheel and push nurse anesthetist service to the top with the same invincible spirit that we expect from those who are fighting our battles in far-away lands.

SURGERY OF THE HEART

CLAUDE S. BECK, M.D.

From the Department of Surgery, Western Reserve University School of Medicine and the University Hospitals, Cleveland, Ohio

I should like to discuss three topics concerning the heart. The first concerns the restoration of the beat. The second concerns compression of the heart. The third concerns the blood supply to the myocardium. To the anesthetist the restoration of the beat has practical significance. The anesthetist and the surgeon perform equally important parts in this task and both should be prepared to restore the oxygen system when it breaks down.

RESTORATION OF THE OXYGEN SYSTEM

By way of introduction, I shall tell of an experience that I had when I was a surgical interne in one of the Baltimore hospitals some twenty years ago. A patient died in the operating room. I do not remember what the operation was, but I do remember that it was one that usually carried no appreciable risk or mortality. The patient had a good heart and good lungs. The death was unexpected and unexplained. Some minutes after the oxygen system had broken down, two firemen arrived in the operating room and placed a pulmotor over the nose and mouth of the patient. The patient was not revived. At that time I felt that the surgeon who called in the firemen had considerable foresight. This idea had never occurred to me. Since then, however, my reactions to this matter have changed completely. *It is my belief now that we surgeons should not turn over these emergencies to the firemen to take care of; we should take care of them ourselves.*

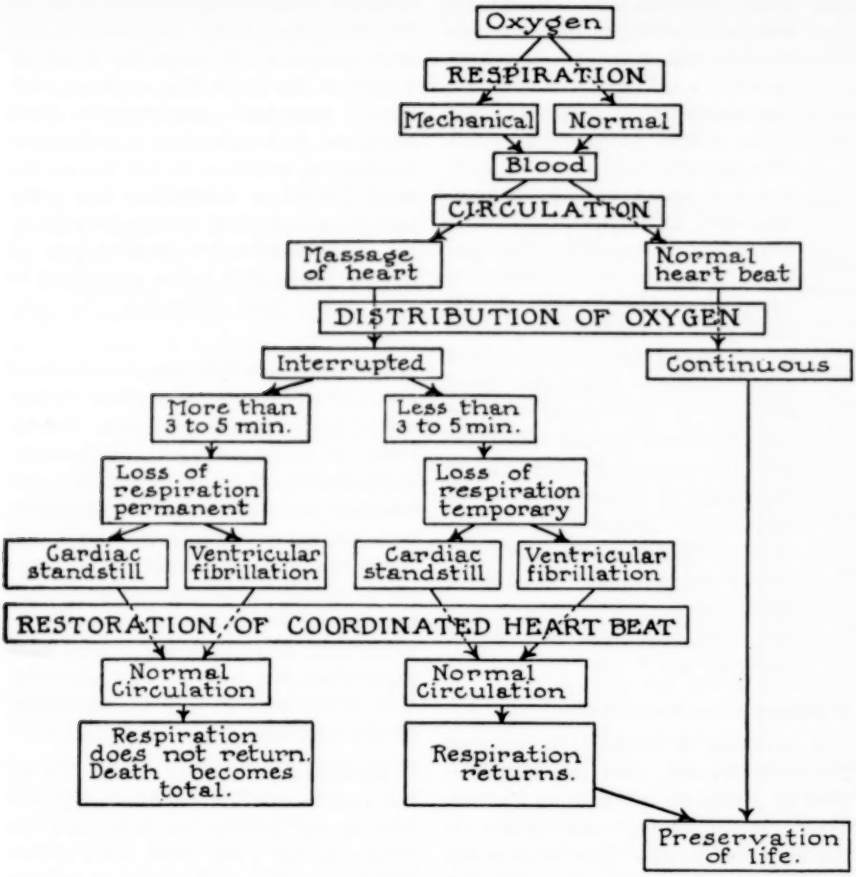
Read at the ninth annual meeting of the New York State Association of Nurse Anesthetists, Rochester, New York, May 21-22, 1942.

Definition of the Oxygen System

The oxygen system includes the mechanisms whereby oxygen is delivered from the outside air to the cells of the body where it is consumed. It includes both respiration and circulation. Circulation is concerned both with the heart beat and with the blood as the distributing medium. It makes little difference whether respiration fails first or whether circulation fails first. The failure of the one will destroy the other in a matter of minutes. From the standpoint of resuscitation, respiration and the heart beat must be considered together as one system. The reader is referred to the accompanying chart.

Type of Case for Restoration of the Oxygen System

1. Our chief concern is with patients who die in the operating room. Here the necessary supplies and equipment are immediately available to make the effort successful. Cardiac massage requires an operation. Time cannot be taken to move the patient to the operating room if the heart beat has stopped.
2. Sustained function should be possible after the system has been restored. In other words, the heart cannot be expected to carry on if it is worn out like an old shoe. We, therefore, ex-



OXYGEN AND RESUSCITATION

clude all patients who have adequate anatomical causes of death.

3. We are interested in those patients in whom the cause of death is reversible. I have in mind those patients who die from anesthetic agents. In these patients the oxygen system can resume its function if the viability of the system has been preserved while the drug effect is present. When the drug effect wears off, the system should be able to carry on again. These reactions are pharmacological in nature. There are also certain physiological causes of death in which we are interested. Some of these deaths remind one of turning the ignition switch in a motor. The system stops with the same effectiveness. A pull upon the omentum has been known to stop the heart. Intracranial pressure can stop respiration and I have tided over several patients by giving mechanical respiration during operation on the brain. By the time the tumor was removed in one of

these patients, the patient began to breathe on his own and his life was saved. I also have in mind a patient who died after child-birth whose life, perhaps, might have been saved. The patient was of small stature and had a twin pregnancy. She died after the births were completed. Autopsy examination revealed no anatomical cause of death. It seems to me that we can explain this death on physiological grounds. It is quite possible that the blood collected in the large veins of the abdominal organs, and that an insufficient quantity got to the heart to maintain life. An abdominal binder and intravenous fluids might have restored an adequate circulating blood volume. The oxygen system otherwise was capable of carrying on.

A Program for Resuscitation[1]

A program is essential because of the time element. After a few minutes of complete circulatory failure, degenerative changes take place in the nervous system. The respiratory system loses its function and, if the period of anoxemia is longer than a few minutes, perhaps about three to five minutes, then the respiratory center never recovers its function. This condition precludes recovery and this is the reason for immediate action. The heart beat can be restored easily.

Respiration

It is my opinion that a mechanical respirator is required for resuscitation. Compression of the chest by hand is not good enough. It seems to me that in our operating rooms we should have something better than the outdoor, boy scout methods of artificial respiration. Adequate mechanical respiration requires good inflation of the lungs followed by the free escape of air from the lungs at a rate of about twenty cycles a minute. I had done considerable chest work and I thought that I understood mechanical respiration, but it was not until I tried to resuscitate the heart that I learned what I now consider to be good mechanical respiration. I found that a little extra something in respiration was necessary for success.

I wonder whether the members of this association, at one time or another, have not felt a sense of bravado in putting a patient to sleep. Suppose the patient should ask you whether he could trust the organization to revive respiration and the heart beat if they should stop. Some of us would be embarrassed by this question. You anesthetists will do your part if you have a mechanical respirator which you use properly. The other part is the responsibility of the surgeon.

Breathing is a lot of work. We do not realize this. I am of the opinion that in the future we will take the breathing job away from some of our patients during operation and give it back after the operation is completed. The machine can do the job better than the patient. Besides it will rest the patient if he has his breathing done for him. This may sound like a radical departure to you, but I am of the opinion that this would be a good thing for those fat individuals with a short neck who do not have a good exchange. You should realize that there is nothing drastic about mechanical respiration.

Circulation

When the heart stops, it either stands still without any movement in what is called asystole, or the ventricular musculature undergoes a state

of fibrillary twitching for a while before movement disappears. If the heart is in standstill it can be made to beat by adrenalin and massage. Bailey[2] has recently analyzed the literature and collected fifty cases in which the heart was revived successfully, and Nicholson[3] added three additional cases in a report appearing in March, 1942.

Ventricular fibrillation is considered to be an irreversible condition in the human. It is fatal. There have been no successful cases of defibrillation. I have succeeded, in three cases, in restoring a coordinated rhythm, but by the time the heart beat was restored, the respiratory center was dead and this defeated our attempts.[4] These three cases promise ultimate success if the respiratory center could be kept alive until the heart beat is restored. I think this is possible. We can do it repeatedly in dogs and, no doubt, complete success will be achieved in human patients.

The methods employed in starting the heart beat concern the surgeon and I shall not discuss them. It is a cooperative task and requires anesthetist and surgeon. The anesthetist provides mechanical respiration. The surgeon applies methods to move the blood from the lungs to the brain. He must keep the respiratory center alive and he must restore a coordinated heart beat. It is not difficult to restore the heart beat, but it is difficult to keep the respiratory center alive while the heart beat is lost. This can be done if we have a proper program of action for these emergency conditions.

I think it would be a step in the right direction if the anesthetists would organize a Registry for Resuscitation. Surgeons have a chest tumor registry. They also have a brain tumor registry. If the experiences in resuscitation were collected, then these data could be analyzed and proper procedures could be worked out for the handling of these emergencies. It would increase our interest in the subject and it would prepare us better for the task.

EXTRINSIC LESIONS OF THE HEART[5]

I like to classify lesions of the heart into intrinsic and extrinsic groups. Intrinsic heart disease is a lesion within the heart itself, while extrinsic heart disease is a lesion outside the heart. The extrinsic lesions are of special interest to us because these conditions can be cured by operation. We have analyzed extrinsic lesions into their various mechanical components and have come to the conclusion that they can be classified as cases of compression, rotation and angulation. Traction in the long axis of the heart, we believe, does not disturb the heart and does not produce dilatation, hypertrophy and failure of the heart.

Compression of the heart occurs more frequently than does rotation or angulation, and I should like to discuss this subject briefly. Compression may be acute or chronic. Either form is easily recognized in the patient. The diagnostic triad[6] for acute compression consists of (1) a small, quiet heart, (2) a falling arterial pressure and (3) a rising venous pressure. The diagnostic triad[7] for chronic compression consists of (1) a small, quiet heart, (2) a high venous pressure in the arm and (3) ascites. These diagnostic triads cannot be wrong. There is no guess work about the diagnosis.

The treatment of these conditions is surgical. Acute compression is seen in patients with stab wounds of the heart and purulent pericarditis. Chronic cardiac compression is produced by scars around the heart, by

fluid in the pericardial cavity, by tumore compressing the heart and by a number of other lesions. I have operated upon forty-five patients with compression scars. Some of these were advanced cases. Some were losing protein so rapidly in the ascitic fluid that they became emaciated. Some had fever and we were forced to operate because they were losing ground. Otherwise we would have waited for operation until the fever subsided. We lost nine patients in this group. One died on the operating table and the others died after operation. The one who died during operation developed ventricular fibrillation and at that time we did not know how to defibrillate the ventricles. Now we have discovered a method which enables us to defibrillate the ventricles and which should be effective in saving a patient who develops this complication. The eight postoperative deaths occurred in patients who were very bad risks for the operation. Most of them had tuberculous pleurisy of an active nature and these could not have been saved by operation.

The clinical results are very good. Almost every one of these patients who survived has been entirely cured of the condition.

The anesthetic in these cases was nitrous oxide together with a small amount of ether. Strong sedative drugs are not used. They depress respiration. We give a small dose of morphine before operation. Deep anesthesia is not necessary and should not be used. We like mechanical respiration for these cases. It can be given without an intratracheal tube. Respiration is taken over by the machine. The pleural cavity on one or both sides is opened as necessary by the surgeon. It helps considerably in doing the operation to open through the mediastinal pleura in order to get around each lateral aspect of the heart. After the pleural cavity is opened, the degree of inflation is noted. If the lungs do not come well up, the pressure is increased until they do come up nicely but not forcibly into the wound. Too much inflation is not good. Mrs. Gertrude Fife has given the anesthetic in these cases. She and Dr. Harold Feil, our cardiologist, constantly observe the blood pressure and pulse rate. They also watch the behavior of the heart. It is remarkable how manipulations of the heart cause the blood pressure to fall and the heart to dilate. They advise when the heart should be given a rest period. I think attention to these points has been of great value. If the pressure is slow to come back, the degree of aeration is noted and, as a rule, we do not start the operation again until the response is favorable. I believe we have avoided complications by giving rest periods to the heart.

After the operation is completed the patient is placed in an oxygen tent. As a rule, the convalescence is smooth and uneventful. Intravenous fluid is not given because of the possibility of producing acute dilatation of the heart after the compression scar has been removed. In some cases recovery is delayed because of the atrophic condition of the heart[8]. The heart gets smaller and weaker after it is compressed and a period of time may be required for the heart muscle to regain its normal strength.

REVASCULARIZATION OF THE HEART[9]

The question arises as to whether we can improve the circulation to the heart muscle by surgical methods. The medical men try to do this by means of certain drugs that dilate the blood vessels. They also reduce the work required of the heart by placing the patient in bed. These

medical methods are of very great value, but they are not adequate. They so frequently fail to save life.

My associates and I have demonstrated the presence of blood vessels between the coronary arteries and the vessels of tissues that were grafted upon the heart. These blood vessels were large enough to see with the naked eye.

We also demonstrated that we could use surgical methods to open up communications between one coronary artery and another. The three coronary arteries could be joined together by such methods. We have shown that these intercoronary communications protected the heart when one of the vessels was occluded.

We have also shown the importance of a small amount of oxygenated blood delivered to that part of the myocardium where the blood supply was deficient. A small amount of blood is able to preserve muscle from changing to scar. It is also able to keep down irritability of muscle, so that it does not induce ventricular fibrillation and death.

If a small amount of blood can accomplish these two effects, and if this small amount of blood can be provided by surgical methods, then we can feel secure that our hope of helping patients with coronary disease by operation has a scientific basis.

It remains to work out the application of the operation. Patients are fearful of an operation on the heart. They will not take the risk of operation unless they feel that there is nothing else in store for them. These patients often know better than the cardiologist the severity of their disease and their prognosis. We have found that frequently when they are willing to have the operation performed, the disease is advanced and they are bad operative risks. When we operate on such patients, we are faced with a high probability of mortality. They will die without operation and they die with operation. This makes the task of application a very serious one. It would be better if we could operate on patients who do not have such advanced disease. It will require some time for this development to take place. The patients who survived the operation have had good clinical results.[10]

BIBLIOGRAPHY

1. Mautz, F. R.: A Mechanical Respirator as an Adjunct to Closed System Anesthesia. *Proc. Soc. Exper. Biol. & Med.*, 42: 190, 1939.

   Beck, Claude S.: A Resuscitation Squad in Our Hospitals. *Bull. Acad. Med.*, Cleveland, 24: 10, 1939.

2. Bailey, Hamilton: Cardiac Massage for Impending Death under Anesthesia. *Brit. M. J.*, 2: 84, July 19, 1941.

3. Nicholson, John C.: Cardiac Massage. *Brit. M. J.*, 1: 385, March 21, 1942.

4. Beck, Claude S.: Resuscitation for Cardiac Standstill and Ventricular Fibrillation Occurring during Operation. *Am. J. Surg.*, 54: 273, 1941.

5. Beck, C. S. and Cushing, E. H.: Circulatory Stasis of Intrapericardial Origin; the Clinical and Surgical Aspects of the Pick Syndrome. *J.A.M.A.*, 102: 1543, 1934.

   Beck, Claude S.: Extrinsic Lesions of the Heart. *Texas State J. Med.*, 36: 468, 1940. Preoperative and Postoperative Care of Patients with Lesions of the Heart and Pericardium. *Arch. Surg.*, 40: 1151, 1940; Compression of the Heart. *Radiology*, 37: 47, 1941; The Compressed Heart — Physiology, Clinical

Manifestations, and Operative Treatment. *The Medical Record and Annals*, Houston, Texas, 1939.

6. Beck, Claude S.: Two Cardiac Compression Triads. *J. A. M. A.*, 104: 714, 1935.
7. Beck, Claude S.: Acute and Chronic Compression of the Heart. *Am. Heart J.*, 14: 315, 1937.
8. Roberts, J. T. and Beck, C. S.: The Effect of Chronic Cardiac Compression on the Size of the Heart Muscle Fibers. *Am. Heart J.*, 22: 314, 1941.
9. Beck, Claude S.: The Development of a New Blood Supply to the Heart by Operation. *Ann. Surg.*, 102: 801, 1935; Further Data on the Establishment of a New Blood Supply to the Heart by Operation. *J. Thoracic Surg.*, 5: 604, 1936; Coronary Sclerosis and Angina Pectoris; Treatment by Grafting a New Blood Supply upon the Myocardium. *Surg., Gynec. & Obst.*, 64: 270, 1937; Natural and Artificial Collateral Circulation in the Heart. *Am. A. Advancement Sc.*, 13: 133, 1940; The Coronary Operation. *Am. Heart J.*, 22: 539, 1941.
10. Feil, Harold and Beck, Claude S.: The Treatment of Coronary Sclerosis by Producing a New Blood Supply. *J. A. M. A.*, 109: 1781, 1937; Coronary Sclerosis and Angina Pectoris; Report of Thirty Patients Treated by the Beck Operation. *J. Thoracic Surg.*, 10: 529, 1941.

PHYSICIANS REFERENCE BOOK

We wish to call attention to a valuable book recently published by E. R. Squibb & Sons, entitled "Physicians Reference Book of Emergency Medical Service," which includes a large collection of excerpts from British medical literature covering practical experience in handling civilian war casualties. The volume covers the general problem of civilian defense; protection of hospitals and civilian health, and matters pertaining to the organization and functioning of hospital services for air raid casualty work. It contains abstracts or full reprints of recent literature on treatment of shock, burns, wounds and fractures and the prevention and treatment of wound infections; the nature and treatment of blast and crush injuries; and the identification and action of war gases, differential diagnosis of injury from them, first aid and general treatment and methods of decontamination. This reference book offers a complete digest of first-hand medical experience in handling the many problems which have arisen in connection with aerial warfare. It is being distributed by Squibb & Sons purely as a public service in the present emergency.

ANESTHESIA IN OPTHALMOLOGY

PAUL F. HOLL, M.D.

Western Pennsylvania Hospital and Eye and Ear Hospital
Pittsburgh, Pennsylvania

Read at the annual meeting of the Pennsylvania Association of Nurse Anesthetists, held in Pittsburgh, April 15 and 16, 1942.

The choice of the anesthetic to be used in eye surgery is largely determined by the personal preference or prejudice of the ophthalmic surgeon. This statement would not have been entirely accurate before the days of avertin and intravenous anesthesia; until then, all intra-ocular operations were performed under local anesthesia and major extra-ocular operations were performed under general inhalation anesthesia. Today there is a growing tendency toward the use of general anesthesia by the intravenous route in intra-ocular and major extra-ocular operations, concerning which the subject matter of this paper will largely deal.

Local anesthesia in eye surgery is produced by the instillation of cocaine or pontocaine combined with infiltration or block anesthesia using novocaine. The production of lid akinesia has greatly increased the safety of local anesthesia in intra-ocular surgery. Local anesthesia is probably the method of choice in the following operative procedures: the removal of chalazion, the opening of styes, minor plastic procedures, minor operations on the lacrimal passages, removal of small conjunctival tumors and pterygia, and iridectomy.

For muscle operations in adults, local anesthesia is of doubtful advantage, for if complete anesthesia is produced, the value of using a local anesthetic is lost, since muscle control is forfeited. At the present time, I believe that the majority of ophthalmic surgeons would include cataract operations in this group. However, I believe that if sodium pentothal anesthesia is given a trial free of prejudice, the number of cataract operations done by the local technique will be steadily reduced. As Spaeth has stated in his recent textbook on ophthalmic surgery, "A just criticism of the ophthalmologist, relative to his use of anesthesia, is his insufficient use of general anesthesia, rather than a too frequent use of the method." The use of inhalation anesthesia is limited to extra-ocular surgery such as major operations on the lacrimal passages, enucleation, exenteration of the orbit, plastic and muscle surgery.

The use of general anesthesia in cataract surgery is at the present time in a state of flux. Previous to the advent of avertin, any operation which entailed the opening of the eyeball contraindicated the use of a general anesthetic. The objections were based on several rather valid facts. The vomiting which is almost certain to follow ether anesthesia so increases intra-ocular tension that there is danger of losing the eye through expulsion of its contents. Cataract operations, which unquestionably form the majority of intra-ocular operations, are predominantly in aged individuals. The subjection of these patients to an inhalation anesthesia is hazardous. However, the desirability of using a general anesthetic presents advantages to both the patient and the surgeon, provided the disadvantages previously mentioned can be overcome.

There is generally, among patients, a fear of having an operation performed upon the eyes and the accidents which happen under local anesthesia can be attributed as much to this fear as they can to any pain inflicted by the operative procedure. The apprehension and nervous strain which some patients are under, decreases their ability to control the movements of the eyes. This lack of proper coordination is a great hazard in cataract surgery and adds considerably to the difficulty of the operative procedure. The ability to use a general anesthetic eliminates this factor and permits the surgeon to have complete control of the movements of the eye, an important factor in preventing operative accidents.

The use of general anesthesia in operations on the eyes began with the advent of avertin. Avertin has several drawbacks, however, which have prevented its general usage. Once the dosage has been determined and given, there is no retraction. Often the proper dosage is not enough and has to be supplemented by another anesthetic. The recovery period is quite prolonged and occasionally the patient may have a circulatory collapse, pulmonary complications, or lower bowel irritation.

About 1935 interest in intravenous anesthesia became very evident, and of the various drugs used, sodium pentothal has become the most popular. At the Eye and Ear Hospital we have been using sodium pentothal with increasing frequency in the last four or five years in all types of eye surgery. The ease of operating under pentothal, as compared with local anesthesia, the quick induction and the satisfaction which the patients express regarding their total amnesia of the operative process, are most gratifying. The complications of sodium pentothal anesthesia are not many when administered by an anesthetist well trained in its use.

I shall make no attempt to tell you how pentothal should be administered, but would like to stress several points with which you are undoubtedly familiar. The dosage of pentothal can be predetermined to a degree by the age and weight of a patient. The administration of that dosage, however, must be by intermittent introduction of the drug. Because there is a latent period between onset of unconsciousness and onset of relaxation, one has to proceed cautiously through this period to prevent an accumulative dosage being built up which would put the patient in a deeper state of relaxation than is necessary. The great advantage of pentothal is the ease and rapidity with which a patient can be brought from one plane of anesthesia to another during the course of the operation. To carry the patient into a deeper plane of anesthesia than is necessary will prolong the recovery period.

The depressing effect of pentothal on respiration is lessened by keeping the air passages open and by the administration of oxygen through an oral adapter. The use of atropine sulphate to control the mucus, and coramine to support the circulation, is especially helpful.

Opiates are essential for a smooth pentothal anesthesia. Thomas believes dilaudid is preferable to morphine. When morphine is to be used, I believe it is an advantage to administer a trial dose to test the patient's sensitivity, thus perhaps eliminating a possible source of postoperative vomiting.

Formerly there was some difficulty with sneezing, especially during the induction period. This was due to the irritation of the nasal mucosa produced by the irrigating fluid having

passed down the nasolacrimal duct into the nose and throat. This has been practically eliminated by the preoperative administration of 4 per cent cocaine instilled into the eye, starting one-half hour and again fifteen minutes before induction of anesthesia.

In the past four years, that is from January 1, 1938, to December 31, 1941, there have been performed at the Eye and Ear Hospital 486 eye operations of all kinds under sodium pentothal. What percentage this represents of the total eye operations done during this period, I cannot say, but I do know that there is a steady trend toward the use of pentothal. Of this number 234 were cataract extraction.

To determine some of the postoperative complications with general anesthesia in cataract surgery, I reviewed a hundred consecutive cases done under pentothal and one hundred under avertin. To give an idea of how general anesthesia has replaced local anesthesia at our hospital, I found that in the same length of time only eighteen cataract operations had been done under local anesthesia.

In the hundred pentothal anesthesias there were nine cases of vomiting occurring within twenty-four hours, as compared with thirteen under avertin and none in the eighteen cases with local. One of the nine with pentothal anesthesia was due to an expulsive hemorrhage, thus leaving only eight cases which might have been due to the anesthetic. One expulsive hemorrhage with vomiting occurred with avertin, but since it developed several days postoperatively, it was not included in the total.

Morphine was the opiate most frequently used; ninety-four times with pentothal and seventy-six times with avertin. Eight of the cases of vomiting in the pentothal series occurred with morphine, and one with dilaudid. In the avertin series, eight occurred with morphine, three with pantopon and two with nembutal. No damage was done by the vomiting in either series. The nurse's notes usually stated that emesis occurred without straining.

It cannot be definitely stated to what factor or factors the vomiting in the eight cases with pentothal can be attributed; whether it was due to the use of the opiate, the mental state of the patient, the operative procedure or the anesthetic per se. In the future, we are planning to test all patients for drug sensitivity in the cases in which vomiting occurs. The one important point is that in the eight cases cited no damage was done from the vomiting.

In the one hundred cases with pentothal, there were three cases in which postoperative restlessness was noted. None of the patients needed restraint and all were quieted with a sedative.

In this series there were no deaths, but the number of cases is too small to be of significance. In 10,140 cases recently reported by Thomas, there were three deaths. All three of these patients were poor operative risks and the result would probably have been the same with any type of anesthetic.

In conclusion, I wish to say that I believe pentothal sodium to be the anesthetic of choice in cataract and other intra-ocular surgery.

INTRATRACHEAL ANESTHESIA

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Read at the meeting of the Tri-State Nurse Anesthetists' Assembly, held in Chicago, May 6-8, 1942.

Intratrachael anesthesia dates back to the early part of the present century, when Meltzer and Auer published in 1909 an account of their animal experiments using this method. Elsberg used it first on humans in 1911.[1] The early method was known as insufflation anesthesia, in which the patient inhaled the anesthetic through the intratrachael tube and exhaled around it. Since the introduction of the closed method with the use of soda lime, the insufflation method has given place to intratrachael inhalation, in which the patient inhales and exhales through the tube.

The intubation procedure was made markedly easier by the perfection of the laryngoscope by Dr. Chevalier Jackson, of Philadelphia. After experiments carried on by Dr. Jackson, Dr. Paluel Flagg decided that a tube of 9 millimeters in the external diameter is safe for use in an adult, a 7 millimeter for a child, and a 5 millimeter for an infant. He believes that tubes of these sizes will not do any harm if left in the trachea for a reasonable length of time.[2] The size of the tube used is a controversial subject. Some authorities believe that the largest size tube which the larynx will accommodate is the proper one to use. Others advocate the use of a smaller tube, as the vocal cords will clamp down on it and keep it fairly airtight.

Dr. Ralph Waters prepared a very clever rubber balloon cuff which may be slipped over the tube and inflated when the latter is in place. This will prevent the escape of the anesthetic gases, as well as prevent any secretions from draining into the trachea. This is a very valuable accessory when sinus operations are being performed, as it prevents the aspiration of pus and blood.

In our clinic, in cases in which we do not wish to carry the patient into deep anesthesia, we have found that a local anesthetic, applied to the larynx before the general anesthesia is started, makes the operation much easier. We use a 2 per cent pontocaine solution, with which we first spray the throat and then apply to the pillars with cotton on a laryngeal applicator. With proper premedication of morphine and atropine or scopolamine, the patients are more easily relaxed and we do not have as much trouble with salivation.

In planning for the procedure, a surgically clean tray is prepared with the following equipment:

1. A laryngoscope with a blade the proper length for the patient.
2. An intratrachael tube which has been chosen for that particular patient. If the operation is in the mouth, nose or sinuses, a cuff is put on the tube.
3. A lubricated stilette is in place in the tube if the intubation is through the mouth.
4. A Jensen mouth gag.
5. A mouth prop—we use part of a roll of 2 inch bandage.

[1] Gwathney. [2] Flagg.

6. A mouth suction tube.
7. A suction catheter with metal angular finger valve.
8. Adaptors to attach the intratrachael tube to the gas machine.
9. The tube is lubricated with sterile anesthetic ointment.

The technique of the intubation through the mouth is as follows:

1. The patient is anesthetized with cyclopropane or nitrous oxide and ether until well relaxed.
2. The inhaler is removed and the throat is suctioned.
3. The Jensen gag is placed in the left side of the mouth.
4. The laryngoscope is grasped in the left hand and guided over the tongue, pushing the latter to the left side of the mouth.
5. The epiglottis is exposed.
6. The tip of the laryngoscope is slipped under the epiglottis and with a lifting (not a prying) motion, the larynx is exposed.
7. The tube is passed by direct vision through the cords on inhalation, without using force. At this point there may be coughing or holding of the breath, but if the tube is attached to the gas machine, the anesthesia may soon be carried beyond the coughing stage.
8. The prop is inserted between the teeth and the Jensen gag removed. The tube may now be anchored to the side of the face with adhesive straps.

If the cuff is to be used, it may now be inflated and clamped to retain the air. If it is not being used and there is a leakage of gas, lubricated gauze may be packed deep into the pharynx.

For intubation through the nose the same preparations are carried out as for putting it through the mouth. When the anesthesia has reached the proper stage, a Magill tube of the proper size for that particular patient is slipped through whichever naris receives it the easiest.

When the catheter reaches the point where bronchial breathing may be heard, it is often possible to slip it into the trachea blindly. When the blind method is not possible, the larynx may be exposed with the laryngoscope. When the cords are in view, the catheter may be grasped with a by-pass forcep and guided into the trachea. Here again the pharynx may be packed with lubricated gauze to make an airtight circuit.

As soon as the intubation is completed and the patient under control, the anesthetist should ascertain whether there are any secretions in the tube. This is extremely important, as secretions may prevent proper ventilation of the patient's lungs. If there is any suspicion of moisture, the circuit should be disconnected at the end of the intratracheal tube. A lubricated suction catheter should then be quickly inserted and the trachea thoroughly suctioned.

The chest movements should be observed to determine if both sides are expanding equally. It is quite possible to pass a long tube into one of the two main bronchi and shut off the lung on the other side. This would make it impossible to ventilate the opposite lung. Of course, this situation may be produced deliberately if the surgeon should wish one lung to be blocked off.

Inserting an intratracheal tube is not always an easy task. The anesthetist will find the operation much easier if she has an assistant who knows how to hold the head of the patient in the proper position. The

following is the method used by the bronchoscopist. The patient is brought up on the table until the shoulders are even with the end. With the shoulders held firmly on the table, the assistant grasps the head with one hand under the occiput and the other on the forehead. He then lifts the head and rotates it backward. This position has a tendency to bring the vocal cords into view.

When an assistant is not available, it is sometimes possible to carry out the procedure with inexperienced help. The patient is placed on the table with the head at the end. A roll about the size of a tightly rolled operating gown is placed under the occiput. If the larynx is not too difficult to expose, this position may be satisfactory; otherwise the former is the one of choice.

Sometimes it appears impossible to expose the vocal cords even with good assistance. Then slight pressure over the cricoid may bring them into view. Another complication which may occur is a spasm of the vocal cords. This may be dealt with by touching them with an applicator which has been wrung tightly out of amyl nitrite. The cords will immediately open very widely.

When the time arrives to terminate the anesthesia, the pharynx should be very thoroughly suctioned, following this with a careful suctioning of the trachea through the tube. If the balloon cuff has been used, it may now be deflated. The tube should be gently removed and the patient watched for any respiratory difficulty.

Although the procedure may seem to be a major operation, there are cases in which it may be a life-saving measure. When respiratory difficulties arise in intracranial surgery, it is possible to carry on artificial respiration for a long period of time, thus saving a life which would otherwise be lost. In pneumonectomy, lobectomy and operations around the nose, mouth and sinuses, it certainly is the procedure of choice.

OFFICIAL NOTICE

The members of the American Association of Nurse Anesthetists are hereby notified that revisions and amendments of the By-Laws will be presented for consideration at the business session of the annual meeting, which will be held at St. Louis, Missouri, October 12-15, 1942.

VERNA M. RICE,
Chairman Revisions Committee

OBSTETRICAL ANALGESIA AND ANESTHESIA

ALVEN M. WEIL, M.D.
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Read at the annual meeting of the Ohio Association of Nurse Anesthetists, held in Columbus, Ohio, April 22, 1942.

Thaddeus Montgomery[1] writing in the *American Journal of Obstetrics and Gynecology* recently said that "the parturient woman wishes to go to sleep with the first labor pain and wake with the baby in her arms, and she is sure from her reading that this is not only feasible but is her rightful privilege." He states further that "women of large urban centers have become steadily more insistent in their demands for a shorter and less painful parturition, and the accoucheur may disregard these demands only at great risk to his own practice."

It cannot be questioned that the injudicious and uncontrolled administration of analgesic and amnesic drugs does produce great harm and in some instances fatalities to both the mother and the fetus. However, is this not true of any potent drug that we commonly employ in the treatment of the sick? In short, I do not believe that because analgesic and amnesic drugs are capable of doing great harm when used in ignorance, that they should be discarded, any more than I believe that radium, a substance that is capable of bringing about marked destruction to normal tissues, should be discarded in the treatment of malignancy. It is generally conceded that the crux of the matter as regards the use of analgesics and anesthetics in obstetrics, is not whether or not they should be used, but how and when they should be used. In my opinion, every parturient patient, with a few exceptions, should be given analgesic drugs to ease the pains during the progress of labor, and an anesthetic, either volatile or non-volatile, as one's judgment dictates, to terminate the delivery.

Various authors have described the so-called safe analgesic and anesthetic and, of course, these are hypothetical and as yet non-existent. This accounts for the many varied methods introduced to relieve or abate the pangs of labor and delivery. When so many methods to bring about the same results are at our disposal, it is at once apparent that no one method is applicable to all patients and, to be sure, none are perfect. Women rightfully demand at least some relief in labor, and it is our responsibility to give them this relief as safely as possible.

To be sure, the responsibility for the anesthesia must usually be shared, or at least relegated, to a trained anesthetist. This, however, is no excuse for the doctor not being entirely familiar with the anesthetic that he wishes administered, for in the last analysis he and he alone is responsible for the safe termination of the case. For the anesthetist to cooperate more completely in giving a safe anesthesia she must have a clear and complete knowledge of the anesthetic that she is called to administer. It goes without saying that this knowledge must include the contraindications and indications for giving different anesthetics under different conditions. She must know the antidote to the powerful drug that she administers and be ready at a second's notice to carry out certain

precautions to safeguard the patient and her baby against harm, either immediate or remote. This intelligent cooperation between obstetrician and anesthetist is of paramount importance for the safe conduct of the parturient woman to a successful termination of labor.

This cooperation includes not only a complete understanding of the anesthetic at hand and knowledge of the type of delivery contemplated; but also a knowledge of the age of the patient, her general condition, the length of her labor, her parity, whether the stomach is full or empty, what, how much, and how recent sedation has been given, and the probable condition and size of the baby. Unless these facts are known by the anesthetist, she is not qualified nor should she be expected to administer the anesthetic intelligently and safely. Unfortunately conditions arise making it impossible for the anesthetist to have this complete information, for it is not infrequent, as we all know, for some women to delay their arrival at the hospital to the time when they are ready for immediate delivery. This type of patient should for her own welfare be delivered under novocain infiltration or pudendal block assisted by nothing more than ether whiffs and not by any type of gas anesthetic.

Here at the City Hospital of Akron approximately two thousand deliveries are consummated each year by about thirty-five different doctors, of whom eight are obstetric specialists. The fetal and maternal mortality compares favorably with that reported by many teaching centers. All types and combinations of drugs are in use to facilitate relief of pain. Those most frequently employed, however, are pentobarbital sodium alone or with scopolamine, and morphine either alone or in combination with scopolamine. The anesthetic used most often is a cyclopropane and oxygen mixture alone or with ether given through the machine, and drop ether by the open method. For the most part, nurse anesthetists give these gas anesthetics.

It is about these analgesic drugs and anesthetics that I wish principally to speak. In the past six years in this institution the combination of pentobarbital and scopolamine has gained in popularity and I believe this popularity is, with certain reservations, deserved. We should be cognizant of the shortcomings of this combination and we will discuss them after we have first reviewed the pharmacology of these drugs so as to better understand their anticipated effect on both the mother and the fetus.

According to Bushnell,[2] pentobarbital sodium is a short-acting barbiturate which seems to have twice the toxicity of barbital, 5.5 times its efficiency and 2.7 times its safety. Its action is much more rapid as compared to barbital, which may be explained by the fact that there is a rapid transfer from the stomach or intestines to the nerve and brain centers. The duration of its action is short. This barbiturate is destroyed in the liver, and is not eliminated through the kidney, as is phenobarbital and barbital. Since this is true, diuresis can in no way influence the elimination and thereby the duration of sedation. The drug has no effect on the metabolism except as the patient herself by marked sedation or increased activity from subconscious reaction to painful stimuli, might raise or lower her oxygen consumption. A fall in blood pressure is a fairly constant finding, dependent upon slight vasodilatation of the peripheral vascular bed. The urinary

output is decreased, probably because of the decreased blood pressure, because there does not seem to be any evidence that it is due to a decrease in glomerular activity. No definite effect on the hepatic function has been demonstrated.

There is some depression of the respiratory center in that the excursions become more shallow; and, as has been shown pharmacologically, death may be produced by respiratory paralysis or pulmonary edema from overdosage. Small doses of this barbiturate usually increase the deep reflexes, while both deep and superficial reflexes are diminished or entirely abolished under larger doses. Toxic symptoms may result from a idiosyncrasy to the drug, and these symptoms are usually characterized by extreme restlessness at first, followed by signs of respiratory depression with pulmonary edema and sometimes death. The antidote for overdosage is picrotoxin, which counteracts the barbiturate, and a respiratory stimulant such as coramine or metrazol to maintain respiratory activity. Because of these possible idiosyncrasies it has been suggested that every parturient woman be tested prior to labor as regards her tolerance to pentobarbital sodium. Clinical experience seems to indicate that body weight alone should be considered in reckoning the dosage, but that weight due to fat alone should be adequately discounted. Temperament supposedly also plays a certain part, in that the thin, nervous type of woman will probably need larger doses for an adequate response.

The effect on the fetus in utero will be discussed later. Most of the men working in our institution use scopolamine along with pentobarbital sodium to enhance its amnesic effects, and there is no proof that scopolamine used in small doses greatly increases the toxicity of the barbiturate. The usual dosage employed is from 3 to 9 grains of the barbiturate given along with from 1/200 to 1/100 grain of scopolamine. The latter is repeated at hourly intervals in gradually decreasing quantities as is indicated by the patient's response. It is generally agreed that never more than a total of 9 grains of pentobarbital sodium should be given to effect the desired response, and if this dosage is thought ineffective one should add possibly either oil mixtures per rectum or nitrous oxide and oxygen.

Now let us discuss in more detail some of the contraindications to the use of pentobarbital sodium in the parturient woman. This drug should not be used in patients with cardiac failure or in those patients with cardiac disease where failure is feared. Because of the high percentage of patients made restless or even wild under the barbiturate, there follows that greater energy is expended and this work over-taxes the cardiac muscle, further endangering its ability to maintain the circulation. Because this drug passes the placenta into the fetal circulation, affecting the respiratory center of the child, it should not be used when the baby is small or definitely premature. From clinical experience we know that these premature babies will not stand analgesic drugs nor will they stand anesthetics, which pass over directly to them from the mother. Premature babies must be delivered under the most favorable conditions as regards high oxygen tension, and this will not obtain if analgesics or general anesthetics have been given. I believe that in these cases it is better to give whiffs of ether with the second stage pains and complete the delivery under local anesthesia, preferably pudendal block, and in this way

the premature baby is given its best chance of survival.

Patients with toxemia should not be given pentobarbital sodium, since these patients already have liver damage. Inasmuch as this barbiturate is destroyed by the liver, one can readily see why overdosage or prolonged sedation may result. Pentobarbital sodium should not be administered to a patient with either acute or chronic respiratory disease. Patients who have bronchitis, bronchiectasis, pulmonary tuberculosis, or pneumonia should be spared this barbiturate.

Since 20 to 30 per cent of the patients given pentobarbital sodium are too restless to be managed without assistance, it is obvious that a constant attendant is necessary. It is best to have a so-called padded bed, so that the patient during her restlessness will not do herself harm. It is necessary not to forcibly restrain the patient but only to protect her against bodily injury.

Finally, it is to be remembered that this barbiturate alone or in combination with scopolamine is given for the sole purpose of producing amnesia and not analgesia. If a sufficient dose is given to bring about analgesia and this is fortified by deep general anesthesia, death from respiratory failure may result. Uterine contractions are not abolished or weakened by sodium pentobarbital. However, they are not utilized to their fullest extent, since the mother does not aid with her accessory abdominal muscles in the bearing down effort of the second stage because the pain of the contraction is not clearly interpreted, and in this confused mental state there is often an attempt at escape by screaming or rapid breathing with associated waste of effort. This confused mental state slows the progress of the second stage and frequently makes spontaneous delivery impossible. Prophylactic forceps therefore is made necessary in from 40 to 80 per cent of the cases to complete the delivery. This procedure in the hands of most physicians is easily and correctly executed without damage to the mother or baby. I believe the correct use of prophylactic forceps is an advantage inasmuch as episiotomy is usually necessary with its attendant protection to the muscles of the pelvic floor.

Now let us discuss the effect of pentobarbital sodium with or without scopolamine, on the establishment of fetal respirations. A review of the recent literature reveals that some authors report no deleterious effect and others condemn its use because of the attendant fetal asphyxia. I am sure we have all seen babies whose respirations were delayed by overdoses of these drugs and in that word *overdose* we have the solution of the problem. It has been definitely established by animal experiments and most recently and most clearly by Snyder and Rosenfeld,[3] that this drug alone or in combination brings about cessation of fetal intra-uterine respiratory movements. This ingenious work was done on the pregnant rabbit whose cord had been sectioned prior to abdominal incision, at which time the intact term uterus was immersed in Ringer's solution and the fetuses viewed through the thin transparent uterine wall. The doses of medication used, based on the weight of the animal, were comparable to those frequently employed in humans. Intravenous injection of pentobarbital sodium and subcutaneous doses of scopolamine first slowed the respiratory movements, then later abolished them completely. This was most obvious and the return to normal delayed longest by the use of morphine.

These workers also demonstrated that the dosage given affected the respiratory movements in a direct manner. In short, the larger the dose, the longer the period of apnea, and marked overdosage produced fetal death. It is realized that application of animal experiments to humans is not entirely applicable, however, I am sure that these experiments can at least be correlated and do indicate the depressing effect that pentobarbital as well as morphine has upon the fetus in utero.

Clifford and Irving[4] of Boston, reviewing a large series of cases in which pentobarbital sodium and scopolamine had been given, reported good results in 85 per cent of these cases and only a small percentage of profoundly asphyxiated babies, — that is, babies necessitating active and vigorous means of resuscitation. There were no deaths directly due to the use of the pentobarbital sodium. When used on good indications and in doses recommended, he considered it a safe drug for the production of amnesia. In his report he demonstrated that morphine and morphine combinations were dangerous as regards the fetus and should not be used. However, some of the obstetric specialists in this hospital and in others, use and like morphine and scopolamine combinations especially in primipara. It is the general consensus that if morphine is given more than six hours before labor is terminated there is little or no deleterious effect on the baby. However, when given within this time limit one often sees profoundly narcotized babies, necessitating vigorous means of resuscitation. Fetal deaths have been reported that were inescapably due to injudicious use of morphine.

When pentobarbital alone or in combination is given in doses not to exceed 9 grains of the former, and preferably less, and when used in cases wherein it is considered indicated, there is little danger to the mother or baby. It is my opinion that the same is true for morphine and scopolamine. Now you may ask, what about those babies who are asphyxiated? Yes, babies born to mothers who have been well managed as regards amnesic or analgesic drugs are still sometimes in a deep state of apnea and require heroic methods of resuscitation, which unfortunately sometimes fail. Usually these fatalities and near-fatalities can be explained on the basis of a so-called accumulation phenomena. By that I mean analgesic or amnesic drugs plus long, hard labors, plus difficult operative delivery, plus cyclopropane with or without ether for longer than one-half hour. It is the sum total of all these depressing phenomena that causes profound fetal asphyxia and sometimes fetal death.

Clarification of this last statement was recently given in an instructive article by Lund,[5] who reported on the "Relation of Inhalation Analgesia and Anesthesia to Asphyxia Neonatorum." I am sure you are all familiar with the work of Eastman,[6] and more recently that of Schreiber,[7] on the occurrence of apnea of the newborn associated with cerebral injury. It was Schreiber and his coworkers principally who have, as a result of their careful clinical and histological studies of the brains of spastic and mentally retarded children, placed nitrous oxide as an obstetrical anesthetic in disrepute. This, many men believe is unfortunate, since nitrous oxide when used on good indications and when proper precautions as to the amount of oxygen given are taken into consideration, is still an excellent and relative-

ly safe anesthetic. Irving[4] has shown that nitrous oxide mixture where 15 per cent or more of oxygen is given, does not increase the incidence of asphyxia neonatorum, and as regards its analgesic effort can be safely given over a period of many hours. It of course cannot be used as an anesthetic where some degree of relaxation is needed, unless ether vapor is added. Only where nitrous oxide mixtures containing less than 15 per cent oxygen are given do we see a high degree of asphyxia neonatorum.

Getting back to the work of Lund,[5] this author reviewed the detailed records of anesthesia for two thousand patients delivered at the State of Wisconsin General Hospital and the University of Wisconsin. These cases were divided into six groups according to the type of inhalation anesthetic used. Each group was analyzed according to the method of delivery, type of delivery and premedication, prematurity, complications of pregnancy, duration of administration of the anesthetic, and the technique of administration. He concluded, and I think rightfully so, that asphyxia neonatorum cannot be judged by the effect of the anesthetic alone unless these other factors are taken into consideration. In summary, he concluded that nitrous oxide, ethylene, and cyclopropane, when used as analgesic agents, did not materially influence the incidence of asphyxia neonatorum. Nitrous oxide, properly administered, was given for long periods of time without significant effect on fetal asphyxia. Cyclopropane when used in concentrations sufficient for anesthesia by operative methods was accompanied by an increase in the incidence of fetal asphyxia, and the incidence of asphyxia varied directly in proportion to the duration of the administration of cyclopropane. He found no relation between asphyxia neonatorum and the type of anesthesia technique. From his studies this author considered cyclopropane a safe anesthetic as regards the fetus, only if it were used for periods of five minutes or less and that after fifteen minutes asphyxia neonatorum increased to 20 per cent. Finally prematurity, complications of pregnancy and labor, methods of delivery and misuse of analgesic and amnesic agents were apparently of greater significance in asphyxia neonatorum than the various inhalation agents when properly administered. Our experience at City Hospital of Akron as regards cyclopropane is entirely in accord with Lund's findings.

Before closing I would like to say a few words about ether as an obstetrical anesthetic. This drug has a wide range of safety and usefulness and a minimum of equipment is necessary for its administration. Its chief disadvantages are the difficulties attendant on induction and the unpleasant nausea and vomiting which so frequently follows the administration. When given in full anesthetic doses its depressent effect on the fetus is frequently evident. When given as light obstetrical anesthesia at the end of the second stage of labor, principally in multipara, it has proved to be effective and safe if the precautions attendant to the giving of any anesthetic are remembered. There is no better anesthetic than ether when extreme relaxation of the uterus is desired, especially for breech extraction, manual removal of placenta, and version.

In conclusion, I wish to say that the nurse anesthetist trained to give anesthetics to obstetrical patients is a great adjunct to any obstetrical staff. However, I believe that the management of the obstetrical patient as regards the anesthesia is

markedly different from that of the surgical patient, and that the best interests of the patient will be served if a full-time anesthetist trained in the art of obstetrical anesthesia and familiar with the usual types of analgesic and amnesic drugs used, and their effect on the mother and fetus, be assigned to the obstetrical division of the general hospital where a considerable number of obstetrical cases are handled.

REFERENCES

1. Montgomery, Thaddeus L. "Analgesia with the barbituric acid derivatives and its relationship to sudden death in labor."
   American Journal of Obstetrics and Gynecology 33:745 - 750, May 1937
2.* Bushnell, Lowell F. "The trend of obstetrical amnesia and analgesia: collective review."
   International Abstract of Surgery 67:155-164, August 1938
3. Rosenfeld, Morris & Snyder, Franklin F. "The factor of anesthesia in the pathogenesis of asphyxia neonatorum."
   American Journal of Obstetrics and Gynecology 38:424-430, September 1939.
4. Clifford, Stewart H. & Irving, Frederick C. "Analgesia, anesthesia and the newborn infant."
   Surgery, Gynecology & Obstetrics 65:23-29, July 1937.
5. Lund, Curtis J. "The relation of inhalation analgesia and anesthesia to asphyxia neonatorum."
   American Journal of Obstetrics and Gynecology 43:365-376, March 1942.
6. Eastman, Nicholson J. "Fetal blood studies: the role of anesthesia and production of asphyxia neonatorum."
   American Journal of Obstetrics and Gynecology 31:363-572, April 1936.
7. Schreiber, Frederic. "Apnea of the newborn and associated cerebral injury: a clinical and statistical study."
   Journal of the American Medical Association 111:1263-1269, October 1, 1938.

* The references pertaining to the pharmacology of analgesics and amnesics were taken almost in toto from the article by Bushnell referred to, and credit to the author is hereby acknowledged.

PRE- AND POSTOPERATIVE MEDICATION

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Read at the meeting of the Tri-State Nurse Anesthetists' Assembly, held in Chicago, May 6-8, 1942, in conjunction with the Tri-State Hospital Assembly.

Mark Twain's description of a contrary woman states, "You never see two alike any one time and you never see one alike twice." So it is with the pre- and postoperative patient. If humans were built like machines so that they responded to physical agents merely in the fashion that engines do to fuel, anesthesia would be a more simple, but less interesting, business. The factors influencing pre- and postoperative medication, however, can be considered only for the average patient, while the anesthetist is responsible for the detailed observation of the patient as an intricate, reactionary, chemical, individual formula.

Anesthesia has been defined as "the reduction of reflex irritability to such a degree that necessary surgery may be accomplished with the minimum danger, pain or discomfort to the patient, and for the convenience of the chosen surgeon." In order to conform to this definition, most anesthetic agents require as an adjuvant careful premedication, which has as its object the lowering of the patient's reflex irritability to, or near, the base line.

The graph of reflex irritability (Figure 1) shows that the curve follows a course parallel to that of the patient's metabolism.

The base line is that stage of reflex irritability in which the patient is at complete rest; he is drowsy and his reflexes are at low ebb. It is about the same basal plane that a normal individual is in when he first awakens in the morning. This is comparable to the patient who has had a satisfactory preanesthetic drug.

There are several pertinent factors to be considered in reaching this satisfactory preanesthetic state, namely:

1. Those conditions which increase reflex irritability
2. Those conditions which decrease reflex irritability
3. The agent to be used
4. The type of surgery and necessary depth of anesthesia
5. The physiological requirements of an ideal anesthesia.

The conditions that increase reflex irritability include:

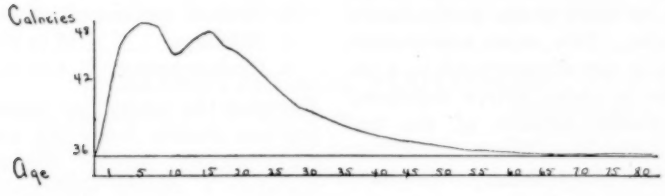
1. Temperature (It has been estimated that there is an increase of 7½% in the metabolic rate for every degree of temperature elevation)
2. Emotional reaction, such as excitement, fear, apprehension, et cetera
3. Physical effort
4. Toxemia
5. Body weight
6. Outdoor life
7. Age

The conditions that decrease reflex irritability include:

1. Weakness
2. Sleep
3. Age
4. Toxemia
5. Body weight
6. Drugs

Elevation of temperature, emotional instability, toxemia and physical effort are, approximately in the order mentioned, the common influences that alter the metabolic curve. Body weight is an important factor, inasmuch as it frequently indicates an endocrine disturbance. For example, the thin, wiry patient is apt to show an increase in metabolic rate while the adipose individual a decrease, so that their responses to various medications and anesthetic agents are affected accordingly. Age, too, plays an important part in the drama of the preanesthetic state. During adolescence it is noted (Fig. 1) that the metabolic curve is relatively high (unless influenced by disease) and such individuals require a larger dosage. The exceptions to these proportions of medication are the extremes in life. The reflex irritability chart would seem to indicate that a small child would tolerate a reasonably large dose of preanesthetic drugs. This, however, does not hold to the rule and great care is necessary in administering these drugs to children. It is also true in the aged, where special consideration as to the type and amount of the drugs to be used is influenced by their effects on respiration, as well as on the cerebral centers of the geratic patient. Again, weakness and lack of body tone are

FACTORS INFLUENCING AMOUNT AND TYPE OF ANESTHESIA



I - Metabolic rate under anesthesia
- A - Metabolic curve in normal persons
- B - Factors increasing metabolic rate
  - 1 - Temperature
  - 2 - Emotion
  - 3 - Physical effort
  - 4 - Toxemias
  - 5 - Body weight
- C - Factors decreasing metabolic rate
  - 1 - Weakness
  - 2 - Sleep
  - 3 - Toxemias
  - 4 - Drugs

II - Age

III - Amount of depression produced by pre-anesthetic agent
- A - Physiologic depression
  - 1 - Opiates
- B - Psychic depression
  - 1 - Scapolamine
- C - Other physiological depressants
  - 1 - Atropine group
  - 2 - Chloral hydrate
  - 3 - Barbiturates
  - 4 - Tribromethanol

FIG. 1

associated with a low metabolic state and such patients require less sedation.

Prior to surgery one should familiarize one's self with any medication which the patient may be taking. There are many sedatives on the market today which greatly influence the chemical and respiratory behavior of the patient for from six to twenty hours following their administration. It is not at all uncommon for the doctor to order one of these for his patient the night before operation in order to insure him a good night's rest.

A combination of morphine and cyclopropane is contraindicated in the patient with cardiac disease who has been receiving digitalis or the allied drugs. This is because of the tendency of these drugs to produce a tachycardia. This same combination of agents is not administered to a patient who is under active treatment with adrenalin, because of the tendency to produce "heart block" or ventricular tachycardia. We have observed this same phenomenon, to a lesser degree, in some patients during a nephrectomy, where, through manipulation, the adrenal secretion has been increased. In the former we have adopted the policy of ordering pantapon or dilaudid, while in the latter another type of anesthetic agent is used.

The problem of the alcoholic patient is familiar to all anesthetists. If the anesthetic is given while the cells are saturated with alcohol, the tissues frequently are at the level reached through premedication, assuring a smooth anesthesia. If, however, the surgery is delayed for twenty-four to forty-eight hours the patient may become a very difficult and dangerous subject both during and following anesthesia.

There are three important physiological requisites to safe anesthesia, namely:

1. The proper mixture of the anesthetic agent
2. Adequate oxygen to meet the patient's metabolic need
3. Proper carbon dioxide adjustment

The ability of the anesthetist to meet these requirements is greatly facilitated by the correct choice and amount of preanesthetic medication.

It is a matter of common knowledge to anesthesiologists that in order to maintain surgical anesthesia the agents listed below must be administered in the following percentages:

1. Ether	3 to 7 per cent
2. Chloroform	.01 to 3 per cent
3. Nitrous oxide	80 to 90 per cent
4. Ethylene	75 to 85 per cent
5. Cyclopropane	5 to 15 per cent

Knowing the potency of these agents, one can readily judge the amount of compensatory drug necessary to maintain a smooth anesthesia in the proper surgical plane. Doctor Meyer Saklad, in *Anesthesiology*, March 1941, gives as the criteria in the choice of anesthesia: "1) The effect of the anesthesia upon the existing pathology in the patient, 2) aid to the surgeon, 3) site of operation, 4) the ability and judgment of the anesthetist."

Suggested comparable criteria for the premedication would include:

1. Individual patient and nature of surgery
2. Preference of the surgeon
3. Choice of the available anesthetic agent
4. The judgment and ability of the particular anesthetist.

No one factor deserves precedence in importance over the other.

Turning for a moment from the

question of reflex irritability and premedication, it is equally important to maintain normal body chemistry in a given patient. Pre-and post-operative examination of the urine is important. The adequate and proper administration of fluids is a study within itself. Normal saline, glucose and Bourne's solution are most commonly used. The latter is made up as follows:

Potassium bicarbonate	50 grams
Di sod. phosphate	179 grams
Distilled water	—q. s. ad 1000 cc.

Thirty cc. of this stock solution is diluted with 500 cc. of distilled water, and 530 cc. of the solution is given for every fifty pounds of body weight. It may be taken by mouth with orange juice, or given as a proctoclysis, and is a great aid in maintaining normal body chemistry. We have found that the precautions taken to maintain this chemical balance are essential to a successfully conducted anesthesia.

The metabolic curve is lowered by two factors:

1. Physiological control
2. Psychic depression

Physiological control is ordinarily accomplished by some type of sedation. The time necessary for the maximum effect of these drugs to be reached is extremely important. As an example, the maximum effect of morphine sulphate is not reached in less than one and one-half hours, and it should therefore be administered one and one-half hours before the anesthesia is started.

The common barbiturates and their maximum effects, as well as the sustained effect, are as follows: (Fig. 2)

BARBITURIC ACID DERIVATIVES

Drug by mouth	*Effect in*	*Effect lasts*
I—Barbital	1 to 2 hours	24 to 48 hours
II—Phenobarbital	1½ to 2 hours	Into next day
III—Sodium amytal	¾ to 1½ hours	12 to 14 hours
IV—Nembutal	20 to 60 minutes	3 hours
V—Seconal	15 to 30 minutes	1 to 2 hours
VI—Epival	10 to 15 minutes	½ to 1½ hours

FIG. 2

Because of the synergistic action, fast-acting barbiturates should not be given with morphine.

The knowledge of percentages of various agents necessary to produce surgical anesthesia obviously tells one that some anesthetic agents necessitate greater complementary aid, and others, less, to produce a satisfactory plane of anesthesia. An example of the former is nitrous oxide, and of the latter, cyclopropane. Comparable also, are the respiratory effects of these two agents. Nitrous oxide builds up respiration and can, therefore, afford greater depression, while cyclopropane does not stimulate respirations and, according to some authorities, depresses respiration. The latter, subsequently, requires a more conservative complementary aid.

The type of surgery is also important. In a short anesthesia, such as might be used for the reduction of a fracture, a large dose of a premedicant drug can be given. In a cholecystectomy, however, where deep relaxation and complete respiratory control are essential, a small dose is

used, so as to guard against respiratory depression and interference with an adequate exchange. This is convincingly true in the cholecystectomy, where the particular surgeon wants deep anesthesia. As a rule, it is better to err on the side of using small doses, which may be repeated, rather than to administer too large a single dose. This is particularly true in the goiter patient.

The second factor to be considered is psychic depression. According to our own experience, this is best accomplished with scopolamine. It is, however, an unstable drug, and therefore should be used in ampule form, rather than a tablet mixture. For the same reason the ampule should not be more than six months old. Those who advocate the use of this drug combine an appropriate dose of morphine sulphate with 1/25 as much scopolamine, feeling that scopolamine diminishes the respiratory depression of morphine, when used with any type of inhalation anesthesia. This view is supported by a recent case report presented at the staff meeting of the State of Wisconsin General Hospital, by Doctor Otto Hibma. Experiments were carried out on a patient who had a lung abscess and a bronchopleural fistula which communicated with the chest wall. Particles of dye were sprinkled onto the ciliated lining of the major bronchi and the time observed which was required for the particles to be carried up the bronchial tree and expelled by coughing. It was found that a combination of morphine and scopolamine impaired the ciliary action least of all the usual premedications tried. This likewise substantiates the theory advocating the use of scopolamine with morphine, as a postoperative, as well as a preoperative medication.

The combinations used were as follows:

Scopolamine grain 1/200—morphine sulphate grain 1/8
Scopolamine grain 1/150—morphine grain 1/6
Scopolamine grain 1/100—morphine grain 1/4

For an average adult, where abdominal relaxation is desired, using cyclopropane as the agent, we rarely give more than scopolamine grain 1/200 and morphine grain 1/8 one and one-half hours before operation.

Atropine sulphate with morphine sulphate has been used for such a long time that in many hospitals, and with many surgeons and anesthetists, it has become a "habit." The ability of scopolamine to "dry up mucus" is as effective as that of atropine, but it does not produce such a "thick, tenacious clumping of the mucus." This further protects the patient from a plugging of the bronchi with resulting atelectasis. Atropine is not a psychic depressant, as is scopolamine, and lastly, atropine is a metabolic stimulant and consequently is antagonistic to the intended effect of the morphine which is given in combination.

Avertin, when used in the selected case as a basal anesthetic, is of great aid, in that it produces amnesia, thus abolishing fear and apprehension, as well as assisting to accomplish physiological depression. This is only true, however, when prepared and administered by a skilled anesthetist and when the nursing facilities for the after-care of the patient are adequate.

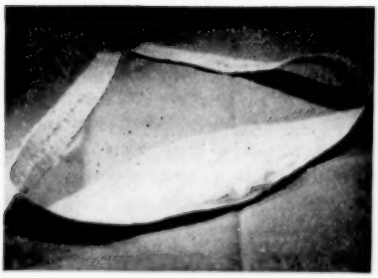
In the May 1941 Bulletin of the American Association of Nurse Anesthetists, in the article by Jerome Pillow Long and William Maury entitled, "Obstetrical Analgesia," there is much information in regard to the

dosage and therapeutic effects of many of the commonly known drugs. Much of this material is likewise applicable in the study of pre- and postoperative medication.

In conclusion, we feel that the ideal preoperative medication is that which produces the desired physiologic and psychic depression and thereby brings the patient's curve of reflex irritability to near the base line.

The ideal postoperative medication is that which controls pain and yet permits the rapid re-establishment or return of normal body functions, namely: 1) respiratory and cough reflex, 2) intestinal function, 3) muscular tone, 4) cerebral function, and 5) and lastly, permits an early readjustment of the vital body chemistry.

I am indebted to the Director of Anesthesia at Wausau Memorial Hospital, E. P. Ludwig, M.D., for a large proportion of the material included in this paper. Through his efforts and cooperation, he has made it possible for the members of our department to study the cases thoroughly, suggest the premedication desired and follow up the patient's postoperative condition and treatment.



SAVE RUBBER

The mask holder pictured is made of unbleached muslin, double thickness, 35½ inches in length. The widened section is 3¾ inches wide at the center, tapering down to 1¼ inches at the strap.

The widened section contains five layers of gauze stitched in to prevent shifting. The sixteen button holes on each strap begin 3⅞ inches from the ends and cover a length of 7⅝ inches.

Since we began to use this mask holder we prefer it to the rubber strap. It is easily made and easy to wash.

GERTRUDE L. FIFE,
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DEPARTMENT OF EDUCATION

THE THERAPEUTIC USE AND ABUSE OF CARBON DIOXIDE

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Carbon dioxide is used therapeutically to increase the respiratory exchange, thus effecting an increase in the tidal volume of inspired air or gases, as the case may be. Since the value of carbon dioxide as a therapeutic drug is a controversial subject, the writer expects to hear reverberations of agreement, as well as of disapproval. Much more must be known about the physiological action of increased concentrations of carbon dioxide in the presence of abnormal conditions before any final theory can be accepted. Until then, most clinicians will continue to be guided by the results obtained from their methods of treating the various conditions in which carbon dioxide inhalations are advocated by some and denounced by others.

The purpose of this paper is to attempt to summarize the concepts of the use and abuse of carbon dioxide therapy. Like most papers, it will be a product of the author's experience and interpretation of the literature on the subject.

Effect of Carbon Dioxide on Respirations:

The respiratory center is located in the medulla oblongata. It is believed that the carbon dioxide of the blood is the normal stimulus of the center and acts as the main factor in lung ventilation. Since experimental evidence has shown that increase in the carbon dioxide content of the blood is the significant stimulus to increased activity of the center, conditions causing either increased production or deficient elimination of carbon dioxide will result in increased respiratory activity.

This can be seen in an individual during exercise. Soon after the exertion is commenced, the ventilation of the lungs is increased. The immediate increase in the depth of the breathing is due, as Krogh and Lindhard have shown, to physical causes associated with the effort, and the continued large intake of air is to be explained on the ground of a persistent chemical stimulation to the respiratory center.[1] Anoxemia during this period of muscular activity may be a contributing factor by its stimulating effect on the chemoreceptors found in the carotid and aortic arch bodies, bringing about an increase in the minute volume of exchange. The chemoreceptors can be stimulated by increased carbon dioxide tension, though less strongly in contrast to its effective action on the center.[2]

In Carbon Monoxide Poisoning:

In this condition, carbon monoxide combines with hemoglobin 210 times more readily than with oxygen. It therefore acts only by displacing oxygen, which reduces the oxygen-carrying power of the red cells. As in anoxic anoxia, the symptoms of carbon monoxide poisoning vary with the rate of onset as well as the intensity, and the after-effects in particular are influenced by the duration of the period in which the blood has been toxically loaded with the gas.

Since approximately 1 liter of oxy-

gen is required to combine with all the hemoglobin in the blood of an adult man, about 0.5 liter of carbon monoxide is all that is necessary to be absorbed in order to bring a healthy adult to the point of prostration. The vital organ most seriously affected is the brain. This becomes edematous and the resulting intracranial pressure may be the cause of the headache which follows even a mild degree of poisoning.[3] This headache is usually frontal, and typical of oxygen deficiency, often appearing in mountain sickness. It is frequently accompanied by nausea and vomiting.[6]

Carbon monoxide is found in artificial illuminating gas (not in natural gas) and as a product of incomplete combustion in stoves, motor exhaust fumes, and mine explosions. The maximum amount of carbon monoxide permitted in the air according to Henderson is 0.03 per cent.[3] Carbon monoxide is a colorless, odorless, and irritant gas, so that there is no warning of its presence. Instead of the skin becoming cyanotic as in other asphyxial conditions, it becomes a scarlet red, due to the color of carbon monoxide hemoglobin.[4] The harm done by carbon monoxide is not due to any direct toxicity but wholly to oxygen want, and is proportionate to the length of time that the tissues, particularly the brain, suffer from the oxygen want.

While the hemoglobin attracts carbon monoxide more strongly than it does oxygen, the reaction is reversible. To terminate the anoxemia and prevent damage to the brain, it is imperative to eliminate the carbon monoxide from the blood as quickly as possible. This is accomplished by increasing the respiratory excursion. Oxygen is necessary to overcome the anoxemia and as the tension is increased, oxygen displaces the carbon monoxide. The addition of 5 to 7 per cent carbon dioxide to the inspired mixture assists in eliminating carbon monoxide from the blood for two reasons: (1) the deeper breathing leads to an increased tension of oxygen in the alveoli, and (2) the carbon monoxide is more thoroughly removed because of the hyperpnea.[5] Stadie and Martin have shown that an even more important factor in using carbon dioxide is the effect of the decreased pH in lowering the affinity of hemoglobin for both gases and thus accelerating the exchange of carbon monoxide for oxygen.

It must be further remembered that in carbon monoxide poisoning with the exclusion of oxygen from the hemoglobin that there is a great decrease in available oxygen for the subsequent production of carbon dioxide. This in turn leaves the respiratory center without its normal stimulant, resulting in the apneic states common in carbon monoxide poisoning. It is in this phase that the re-introduction of carbon dioxide in the inspired air is of paramount importance.

The method of administering the oxygen and carbon dioxide mixture would depend on the degree of anoxia. In the presence of an apnea, it would be necessary to use a resuscitator, but where there is some respiratory effort, even though there be some depression of the center, an inhalator would be used. It is very essential that neither method allow for any rebreathing. After the breathing and color has returned to normal, it may be well to administer high concentrations of oxygen by the nasal catheter method.

In Dementia Praecox:

In an attempt to find some form of treatment to induce periods of mental clarity and intelligent responsiveness in certain cases of dementia

praecox, as of the catatonic type, continuous oxygen as well as oxygen-carbon dioxide inhalations were administered. Lovenhart, Lorenz, and Waters found that brief periods (one to two minutes) of inhalations of 30 to 40 per cent carbon dioxide with oxygen would produce general anesthesia.[7] At the conclusion of the treatment there was increased cerebral activity which lasted two to twenty-five minutes, after which the patient returned to his original state. In most instances stuporous, mute, and resistive patients became temporarily active and communicative. These effects were explained as being due to a decreased oxygen fixation of the cerebral tissue cells in a manner that is obtained by sodium cyanide.

Hensie, Barach, Harris, Brand, and McFarland started to treat a group of twenty-one patients in an atmosphere of high oxygen concentration and low concentrations of carbon dioxide.[8] At stated times the carbon dioxide concentration was gradually increased to 15 or 20 per cent. The patients received this high concentration for a period of one or two minutes. Sometimes these patients showed a distinct and overruling fear of death or injury, followed by vigorous resistance to the inhalation of high concentrations of carbon dioxide. They likewise protested with great fear over losing consciousness.

From the observations made by Barach and his co-workers in this study over a period of twenty months, ending in January, 1933, they arrived at this conclusion: "It does not appear that the oxygen and carbon dioxide treatment of catatonic dementia praecox patients is to be advocated as a general therapeutic procedure. We are unable to draw conclusions regarding the role played by this treatment in the recovery of two patients."

In Schizophrenia:

The schizophrenic patient treated with metrazol has a brief epileptiform convulsion immediately following the intravenous injection of this drug. During these convulsions respirations become greatly disturbed, anoxemia and gasping movements occur. This condition is sometimes followed by apnea. Instantaneous application of carbon dioxide 5 per cent and oxygen 95 per cent under positive pressure will inaugurate normal respiratory efforts within a minute or two. An anesthesia gas machine or a simple home-made inhalator which consists of a flow regulator, bag and mask is all the equipment needed. Positive pressure not to exceed 10 millimeters of mercury is applied manually. Once the patient breathes spontaneously, further inhalations are usually not necessary.

Jackson and Jackson state another possible use for carbon dioxide in schizophrenia.[22] They suspect that such temporary brightening up of the schizophrenic's mentality as may occur from the inhalation of carbon dioxide in oxygen is due to stimulation of the same physiologic mechanism as is brought into play by metrazol or insulin, and possibly carbon dioxide inhalations might be used as a sort of preliminary test to indicate whether or not any given patient might or might not be benefited by the much more heroic and expensive treatment with insulin or metrazol.

In Hiccough:

Hiccough is a tetany or twitch of the diaphragm which results in a quickened inspiratory effort and terminates in an abrupt closure of the glottis. Postoperative hiccough is usually reflex in origin and results from stimulation by irritation of the

nerve endings in the gastro-intestinal tract, in the genito-urinary tract, and in the visceral and parietal peritoneum.[24]

To abolish this laryngo-diaphragmatic spasm, inhalations of 10 per cent carbon dioxide for three to five minutes is sometimes effective.[12] The deep and prolonged respirations interrupt the short, sudden inspirations, thereby overcoming the spasm. This form of treatment is not always successful, at which time measures are employed to eliminate the cause.

Carbon Dioxide as an Adjunct to Anesthesia

During Induction of a General Anesthetic: One of the anesthetist's primary objectives is to get the anesthetic from the alveoli to the blood as rapidly as possible in order to hasten the induction period. This must be done without disturbing any of the normal physiological processes. To realize this objective it is necessary to increase the area of alveolar membrane exposed to the anesthetic mixture and to increase the respiratory volume per minute.[10]

Five per cent carbon dioxide added to the anesthetic mixture for a very short period of time will aid in accomplishing these prerequisites. The respiratory depth will be increased, thereby increasing the amount inspired per minute. This increase in the respiratory excursion will increase the alveolar area exposed to the blood and bring about greater diffusion of the gases.

In 1858, Miescher demonstrated that inhaling small percentages of carbon dioxide stimulated the respirations. At the beginning of this century Haldane showed that the pressure of carbon dioxide in the pulmonary alveoli regulated the minute volume of inspired air in an accurate way. Yandell Henderson believed that during the induction phase of anesthesia the blood is apt to be deficient in carbon dioxide, this deficiency to be followed by proportional decrease in the alkaline bicarbonates in the blood. These investigators suggested that 5 to 10 per cent carbon dioxide be administered to make up the loss.[19]

Carbon dioxide has, until recently, been given routinely in concentrations as high as 20 to 30 per cent during the induction period. In addition to the action on the diffusion rate of the gases, these high concentrations acted as an anesthetic, which explains the reason why the patients went to sleep so quickly. This is an abuse of a valuable drug. The strongest advocates of the use of carbon dioxide in anesthesia are to be found in England and her colonies. The authors of British textbooks and current literature feel that the introduction of carbon dioxide inhalation into the practice of surgery is one of the most valuable innovations of the day.[11, 13, 14]

There are many anesthetists in the United States who share this attitude and perhaps just as many who do not. In 1925 Lundy reported a series of cases in which carbon dioxide was used in induction, during maintenance, or at the termination of anesthesia. Heidbrink's paper, in 1932, on carbon dioxide in dental anesthesia stated, "routine use of carbon dioxide for a number of years has convinced me that carbon dioxide does contribute to better breathing, quicker clotting of the blood, quicker and better recovery, and to the safety of nitrous oxide-oxygen, and that it prevents many anesthesia interruptions."[21] Waters is of the opinion that the use of carbon dioxide as an addition to anesthetic atmospheres is to be severely condemned as being an unfortunate habit in that it is unphysiologic.[15]

Heavy premedication seems to be "in vogue." Patients come to the anesthesia room with respirations both slow and shallow. To put a patient quickly into third stage anesthesia in the presence of marked respiratory depression is not an easy task. While most anesthetists favor good premedication because it lowers the metabolic rate as well as reduces the amount of anesthesia necessary, they are nonetheless aware that it requires skillful handling in determining the dosage and the time to be administered. There is usually little need to supplement the anesthetic mixture with carbon dioxide when the medication is given correctly. It is when dosages are determined by "routine orders" or "thirty minutes before operation" that respiratory depression is most apparent. There are some surgeons, however, who prefer dosages that are comparable to the effects obtained from a basal anesthetic.

It tis desirable to have the patient inspire an anesthetic mixture with the carbon dioxide content equal to or not greater than atmospheric air. The desirable is not always practicable. The author rarely uses carbon dioxide from the cylinder for the induction. Instead the exhaled carbon dioxide is allowed to build up in the bag by keeping the soda lime filter turned off. Two minutes after the induction has been started, sometimes sooner, when the respiratory depth increases, the filter is turned on part way. If the respirations are quite deep at this time, the soda lime is turned on completely so that the inspired air is apparently free from carbon dioxide.

In frightened children and in robust individuals whose respiratory excursion is increased, bordering on hyperpnea, the filter is turned on when the anesthetic is started. During the late induction or early maintenance period these individuals may require some carbon dioxide to overcome the shallow breathing or apnea which has followed the acapnia caused by the hyperventilation. Uusally regular breathing can be restored by turning the soda lime off for a very brief period and by gently applying positive pressure on the bag.

A gross abuse of carbon dioxide is to allow the absorber filter to be turned off either during the induction, maintenance, or recovery period until the respirations become markedly stimulated. For when the filter is turned on, at which time all of the accumulated carbon dioxide will be removed from the bag, or the anesthetic is discontinued and the patient breathes atmospheric air containing so little carbon dioxide, a marked apnea may result. Renton says that one should not leave the patient over-stimulated, for this is followed by a washing out of too much carbon dioxide from the system, with a compensatory stage of respiratory depression.[23]

In Open Drop Ether:

Unless a quick-acting anesthetic agent such as nitrous oxide, vinethene, ethyl chloride, cyclopropane, or ethylene is used for the induction of an open drop ether anesthesia, some other means should be provided to hasten this stage. Many anesthetists recommend that carbon dioxide be used. [11, 12, 13, 14, 17, 18, 20, 23]. The author prefers not to use this method of shortening the induction time. Instead one of the above short-acting agents is used.

It is not often, but yet there is the occasional time when it is advisable to have the patient's depressed respirations from the premedication slightly stimulated before starting the anesthetic. In such instances a

two-minute inhalation of 5 per cent carbon dioxide with oxygen is effective.

A continuous flow of oxygen by nasal catheter (four liter per minute) throughout a long open drop ether anesthesia, or for a very shocking operation, aids in combating the shock. If the respirations become depressed during the anesthesia, 5 per cent carbon dioxide can easily be added to the oxygen flow at intervals.

In Ether Convulsions:

The cause of ether convulsions under ether anesthesia has not been definitely determined. Conditions which have been blamed for this phenomenon are as follows:[12]

1. Overdosage of the anesthetic.
2. Impurities in ether, particularly the aldehydes and peroxides.
3. Heat stroke due either to hot weather or heated ether vapor.
4. Carbon dioxide imbalance due to the lack of carbon dioxide or gross overdosage of carbon dioxide. It seems carbon dioxide lack is the more probable, as the spasms have been stopped several times by the addition of carbon dioxide to the inspired mixture.
5. Acute septic conditions.
6. Calcium deficiency.

The author has seen only one case of ether convulsions. This patient was treated with oxygen under pressure, and in five minutes the spasm was over. In the literature on the treatment for ether convulsions, especially the British, the administration of carbon dioxide was advocated. [18, 26, 27, 51]

In Cyclopropane:

The author prefers not to administer carbon dioxide in cyclopropane anesthesia. The only time it is given is in the presence of a persistent apnea during induction. If positive pressure on the bag, with the soda lime canister turned off, does not start the respirations, then part or all of the anesthetic mixture is deflated from the bag and oxygen with a small amount of carbon dioxide is added. Artificial respiration by pressure on the bag is continued until the apnea is overcome. At this time the canister and cyclopropane are turned on.

Under ordinary circumstances the carbon dioxide filter is turned on soon after the anesthetic is started. This method is likewise recommended by Thomas and Jones.[28, 29]

In Rectal Anesthesia:

Avertin, even when given in basal dosage, has a tendency to lower the blood pressure and to depress the respirations. When signs of overdosage with avertin occur, Morton gives coramine intravenously and inhalations of carbon dioxide.[52] Burwell found that the use of carbon dioxide and oxygen was all that was needed to return the respiratory rate to normal, except once when he also used coramine.[30] In the three thousand cases of avertin anesthesia reported by Mueller, inhalations of 5 per cent carbon dioxide were employed as "first aid."[31] Suhroff also administered carbon dioxide and oxygen for respiratory depression.[32]

In many cases the slow, shallow breathing is due to anoxia of the medulla caused by a fall in blood pressure, and is improved by the administration of vasoconstrictor drugs and oxygen. The Trendelenburg position aids in overcoming the anemia of the brain. Marked respiratory depression may be treated with intravenous injections of 1 to 3 cc. of metrazol and with 5 per cent carbon dioxide and 95 per cent oxygen until a satisfactory tidal exchange is established.

Hogan's postoperative technique for rectal evipal anesthesia is 3 cc. of metrazol every half hour for two or three doses. He feels this to be a more effective means of accomplishing complete aeration of the lungs than the use of the carbon dioxide-oxygen mixture with its attendent dangers of overstimulation and laceration of the smaller alveoli.[33]

In Intravenous Anesthesia:

Both pentothal sodium and evipal have a tendency to depress the respiratory center, resulting in anoxia of the medulla.[34] Continuous oxygen should therefore be administered.[35, 36] This may be accomplished by using nasal catheters, the B-L-B or O.E.M. mask attached to a large commercial cylinder. Oxygen may also be administered by the closed method with the gas machine.

If cyanosis or respiratory depression occurs during the anesthesia, carbon dioxide should be administered promptly.[37, 38] Serocca and Halton recommend the immediate use of small doses of coramine or lobeline, and a mixture of carbon dioxide and oxygen to restore normal breathing following depression from evipan sodium.[40, 41]

The B-L-B or O.E.M. mask provides for a little rebreathing, which means that the patient is constantly inspiring a small concentration of carbon dioxide, which aids in preventing or overcoming respiratory depression. When the nasal catheter is used, carbon dioxide may be added to the oxygen flow. Thomas administers carbon dioxide-oxygen for respiratory depression by the nasal adapter method.[39] To stimulate respirations with the gas machine, the soda lime filter may be turned partly or completely off, thus allowing the patient to build up the carbon dioxide concentration in the bag. For marked depression, the canister is turned off, carbon dioxide added to the mixture, and positive pressure applied to the bag.

In Intratracheal Anesthesia:

The intratracheal tube, either by the naso-tracheal or oro-tracheal method, is introduced between the vocal cords during the inspiratory phase. The deeper the patient breathes, the wider the glottis will be opened, and the easier will intubation be accomplished. To facilitate easy introduction of the intratracheal tube, the patient's respirations may be stimulated by carbon dioxide.[18, 42, 43] The anesthetist should guard against the production of apnea from too high a concentration of carbon dioxide. Thomas does not mention the value of stimulating respirations prior to intubation.[53]

The author usually turns off the soda lime for a minute or two and applies gentle positive pressure to the bag before removing the mask to insert an intratracheal catheter, by the blind (nasal)or direct (oral) method.

In Spinal Anesthesia:

The blood pressure has a tendency to drop and the respirations tend to become more shallow under spinal anesthesia. This effect of the spinal drug reaches its maximum in twenty to thirty minutes, and the degree of this undesirable change depends on how far up the subarachnoid space the drug has ascended.

A marked fall in blood pressure results in cerebral anemia, which is one of the contributing causes of nausea and vomiting. In addition to placing the patient in Trendelenburg position, providing the spinal drug has been given long enough to be fixed, oxygen should be administered continuously.

As the height of the anesthesia above the costal margin increases,

more and more of the intercostal nerves are paralyzed, which decreases the amplitude of respiration. The decrease in the minute volume of respiration may therefore be the result of two things: first, anoxia of the respiratory center, and second, cessation of costal breathing. Oxygen inhalations will combat the first cause, but it will not increase the respiratory excursion of the chest wall. The specific treatment for the second is a respiratory stimulant. Drugs such as coramine, metrazol, alpha-lobeline, and picrotoxin will be of some benefit. But when there is an immediate need for respiratory stimulation and when these analeptic drugs have not had time to act, or need supplementing, carbon dioxide should be given with the oxygen. The response will occur soon if given under slight positive pressure. After the objective has been reached—increased tidal volume, the carbon dioxide should be discontinued, to be added intermittently to the oxygen only as needed.

Maxson finds three reasons for using carbogen: (1) it affords direct stimulation to the respiratory center, (2) wider respiratory excursions, and (3) consequent better flow of blood in the great veins.[44] Adams and Tuohy add 10 per cent carbon dioxide to the oxygen to relieve the nausea and vomiting;[45] whereas Livingstone, Davies, and Frisch give it when the feeling of faintness develops.[46] The free use of oxygen and carbon dioxide for all patients who are poor risks is advocated by Garth.[47] Tovell recommends lowering of the head to prevent excessive fall of blood pressure, and the administration of 90 per cent oxygen and 10 per cent carbon dioxide to be beneficial.[48] Averett, Sussman, and Zimring reported: "Carbon dioxide and oxygen administration is a valuable prophylactic against pulmonary complications developing in spinal anesthesia. When no carbon dioxide and oxygen were used, we had 5 per cent of pulmonary complications; when carbon dioxide and oxygen were used, 0.8 of 1 per cent developed pulmonary complications." Intermittent use of oxygen and carbon dioxide for several hours after the patient has returned to bed, following thoracoplasty in pulmonary tuberculosis, is recommended by Gurd, Vinebarg, and Bourne.[50]

REFERENCES

1. Krogh and Lindhard: "*Journal Physiology*," 47:112, 1913
2. Schmidt, C. F.: "Effect of Carotid Sinus and Carotid Body Reflexes upon Respiration," *Anesthesia and Analgesia*, 19:261-271, 1940
3. Peters and Van Slyke: "Quantitative Clinical Chemistry," p. 625, 1937
4. Sollmann, Torald: "A Manual of Pharmacology," 5th edition, p. 749
5. Bard, Philip: "MacLeod's Physiology in Modern Medicine," 8th edition, p. 600
6. Henderson, Yandell: "Adventures in Respiration," 1938, p. 102
7. Lovenhart, A. S., Lorenz, W. F., and Waters, R. M.: "Cerebral Stimulation," J. A. M. A., XCII, 880-883, 1929
8. Hinsie, L. E., Barach, A. L., Harris, M. M., Brand, E., McFarland, R. A.: "The Treatment of Dementia Praecox by Continuous Oxygen Administration in Chambers, and Oxygen and Carbon Dioxide Inhalations," Reprint from Columbia University Medical School
9. Edmunds and Gunn: "Cushny's Pharmacology and Therapeutics," 12th edition, p. 241

10. Guedel, A. E.: "Inhalation Anesthesia," 1937
11. Black, E. C.: "Uses of Carbon Dioxide in Anesthesia," *Medical Journal of Australia*, 2:847-857, 1935
12. Hewer, C. L.: "Recent Advances in Anesthesia and Analgesia," 3rd edition
13. Rivers, H. and Gonzales, R. B.: 'Physiological and Therapeutic Action of Carbon Dioxide Inhalation," Abstract in *British Journal Anes.* 13:189, 1936
14. Grant-White, H.: "Preventable Mortality and Morbidity in Anesthesia," *British Journal Anes.* 14:55-79, 1937
15. Waters, R. M.: "Inhalation Anesthetic Agents," *Dental Cosmos.* 78:823-828, 1936
16. Renton, D. G.: "Gas Anesthesia: the Closed Circle Absorption Technique," *Anesthesia and Analgesia*, 16:9-15, 1937
17. Ross, J. S., and Fairlie, H. P.: "Handbook of Anesthesia," 3rd edition
18. Nosworthy, M. D.: "Anaesthesia," 1940
19. Barach, Alvan: "The Gases in the Atmosphere as Therapeutic Agents," *Southern Medicine and Surgery*, Volume 104, No. 2, 1942
20. Modan, K. E.: "Carbonized Ether for Anesthesia," *British Journal Anes.* 15:122-124, April 1938
21. Heidbrink, J. A.: "Carbon Dioxide in Dental Anesthesia," *Anesthesia and Analgesia*, 11:91-93, March-April 1932
22. Jackson, D. E., and Jackson, Helen L.: "Experimental and Clinical Considerations of the Actions of Camphortetrazol, Metrazol, and of Schizophrenic Psychoses." *J. Lab. & Clinical Medicine* 23:1240-1248, Sept., 1938
23. Renton, D. G.: "Carbon Dioxide: Some Observations on Its Use and Abuse During Anesthesia." *Medical Journal of Australia* 1: 121-125, January, 1932
24. Blalock, Alfred: "Principles of Surgical Care," 1940, page 302-303
25. Daly, Ashley: "Two Instances of Ether Convulsions" *British Journal of Anesthesia* 14:162-167, July, 1937
26. Hadfield, C. F.: "Discussion on Late Ether Convulsions." *Proc. Roy. Soc. Med.*, 21:1699-1706, 1928
27. Willway, F. W.: "Ether Convulsions with Normal Behaviour During Subsequent Ether Anesthesia." *British Medical Journal* 1:764, April, 1935
28. Thomas, G. J., and Jones, G. W.: "Clinical Experiences in the Prevention of Cyclopropane Oxygen Explosions by the Addition of Helium." *Anesthesia and Analgesia*, 20:121-131, May - June, 1941
29. Jones, G. W., Thomas, G. J.: The Prevention of Cyclopropane-Oxygen Explosions by Dilution with Helium." *Anesthesiology*, 2:138-143, 1941
30. Burwell, E. L.: "Avertin Basal Anesthesia." *Anesthesia and Analgesia* 11:269 - 272, November-December, 1932
31. Mueller, Lillian B.: "Report of Three Thousand Cases of Averin Anesthesia." *Journal Indiana State Medical Association*, 29: 175-180, April 1st, 1936
32. Suhrhoff, Marion: *Bulletin American Association of Nurse Anesthetists*, 5:353-355, August, 1937
33. Hogan, Howard: "Clinical Observations on the Use of Rectal Evipal in 200 Cases as a Com-

plete Anesthetic," *Anesthesia & Analgesia*, 17:77-80, March and April, 1938

34. Adriani, John: "Pharmacology of Anesthetic Drugs," 2nd edition, page 42

35. Beddow, Anne: "Pentothal Sodium Intravenous Anesthesia with Oxygen in the Two Extremes of Life." *Bulletin American Association of Nurse Anesthetists*, 7:319-327, November, 1939

36. Carraway, B. M.: "Sodium Pentothal Anesthesia: A Report of 2,569 Consecutive Cases." Bulletin, Norwood Clinic (Birmingham) 2:3-6, August, 1938

37. Lundy, J. S., and Tuohy, E. B.: "Intravenous Anesthesia." Proc. Interstate Postgraduate Medical Assembly North America, October, 82-86, 1936

38. Tuohy, E. B.: "Intravenous Anesthesia with Pentothal Sodium," *Anesthesia and Analgesia* 16: 167-170, 1937

39. Thomas, G. J.: "Clinical and Laboratory Observations on Intravenous Anesthesia." *Anesthesia and Analgesia* 17:163-168, May-June, 1938

40. Serrocca, Pasquale: "General Intravenous Anesthesia with Evipan Sodium." *British Journal Anesthesia* 12:78-80, January, 1935

41. Halton, J.: "Evipan in Dentistry," *Dental Rec.* 56:566-569, August, 1936

42. Challis, J. H. T.: "Anesthesia for the Operation of Dissection of Tonsils," *Anesthesia and Analgesia* 16:82-84, 1937

43. Hargrave, Ralph: "Endotracheal Anesthesia in Surgery of the Head and Neck." *Anesthesia and Analgesia* 16:181-186, 1937

44. Maxson, L. H.: "Spinal Anesthesia," 1938

45. Adams, R. C., and Tuohy, E. B.: "Sacral Block Anesthesia: A Consideration of the Unusual Difficulties Encountered and a Report of Two Unusual Cases." *Minnesota Medical Journal* 21: 397-402 (June) 1938

46. Livingstone, Huberta; Davies, Mae; and Frisch, Jane: "Blood Pressure and Pulse Variation During and Following Spinal Anesthesia." *Anesthesia and Analgesia* 15:241-244 (Sept.-Oct.) 1936

47. Garth, W. L.: "Spinal Anesthesia and the Anesthetist." *California and Western Medical Journal* 44:364-367 (May) 1936

48. Tovell, R. M.: "Control of Blood Pressure During Spinal Anesthesia: Preliminary Report on the Use of Benzedrine." *Proc. Staff Meeting, Mayo Clinic*, 11: 585-588, 1936

49. Averett, L., Sussman, W., and Zimring, D.: "Spinal Anesthesia with a Report of 896 Cases." *Amer. J. Obst. & Gynec.* 24:339-347 (Sept.) 1932

50. Gurd, F. B., Vineberg, A. M., and Bourne, Wesley: "Our Experience in the Employment of Spinal Anesthesia for Thoracoplasty." *J. Thoracic Surgery* 7: 506-511 (June) 1938

51. Payne, R. V.: "Ether Convulsions." Guy's Hospital Rep. 86: 461-475, 1936

52. Morton, W. R. N.: "The Dosage of Avertin as a Surgical Anesthesia." *British Journal Anes.* 12:33-40, 1934

53. Thomas, G. J.: "Technique in Intubation Anesthesia with Detailed Illustrations." *Anesthesia and Analgesia* 17:301-310, Nov.-Dec., 1938

NOTES FROM HEADQUARTERS

MARY ELIZABETH APPEL
Executive Secretary

Right now you may begin thinking that "there will definitely be a convention in St. Louis October 12-15, 1942" and this particular war meeting will be the most important since the Association was formed. The main theme will be the needs of war and how to best serve your hospital, yourself, and other members of your profession by an interchange of such ideas as: sharing personnel, the utilization of every facility at hand, and a sound preparation for whatever may be ahead.

CONVENTION PROGRAM

The convention program printed in this issue brings before you the names of some of the finest men and women in the medical field, who will speak on pertinent subjects vital to the progress of every nurse anesthetist.

So, won't you please make your plans now to be in attendance and to bring with you all those excellent ideas that need "airing" in the panel discussions, in order to help your fellow members and to gain stimulating and valuable information for yourself. Decide to meet the outstanding leaders in your profession and learn their answers to present-day problems.

Registration

For some of you this will be your first convention. To save time and confusion, here is the general procedure: Register first with the American Hospital Association at their registration desk. You will be given a badge with your name attached. Next, register with the American Association of Nurse Anesthetists at their registration desk. Here you will pay a registration fee of one dollar and will be asked to fill out a card. You will be given a ribbon on which is printed "Anesthetist," which is to be pinned to the badge given you by the American Hospital Association. A program and other notices will be given to you, and this is the time to purchase your ticket for the A. A. N. A. banquet.

Reserve Rooms Now!

Send your reservation to the Statler Hotel, St. Louis, Missouri, for the dates October 12-15, 1942, and at the same time state that you will attend the banquet on Wednesday, October 14.

Hobby Exhibit

Here's your chance to help create one of the most interesting exhibits at the convention. Miss Esther C. Myers, Mount Carmel Mercy Hospital, Detroit, is chairman of the educational exhibit and has announced that she is also planning a hobby exhibit. All members are invited to submit an exhibit illustrating their hobby at the annual meeting in St. Louis. Your own particular hobby will be of great interest to all who visit the booth and Miss Myers is anxious to hear from any one who wishes to bring her hobby exhibit to the convention.

Miss Myers' own hobby is collecting obsolete anesthesia equipment, and she would appreciate receiving any old equipment you may wish to release, asking that you contact her first to be certain that no duplications occur. Also, if

there is a history connected with the apparatus it should be included. To quote Miss Myers, "I am hoping to have an interesting collection to present as my hobby and will be grateful for any and all contributions or suggestions."

It doesn't matter what your hobby is, from china dogs to wood carvings—plan now to make a showing at the hobby exhibit.

THANKS FOR THE BEGINNING!

Since word got around that the Association was starting a library on anesthesia, gifts of books by distinguished authors have been donated by good friends, and bulky packages of valuable reprints have arrived, along with timely excerpts on anesthesia from leading medical magazines. This fine collection marks the beginning of what has long been needed by the association—an anesthesia library, and, thanks to our generous friends, we are well on the way.

To acquaint you with some of the books received, here are brief reviews:

THE PHARMACOLOGY OF ANESTHETIC DRUGS, second edition, by John Adriani, M.D. 86 pages. Illustrated. Charles C. Thomas, Springfield, Illinois, 1941. Presented by Mr. W. H. Stephenson of the J. H. Emerson Co., Cambridge, Mass. Reviewed by Esther C. Myers, R.N., Director of Anesthesia, Mount Carmel Mercy Hospital, Detroit, Michigan.

This book is prepared in outline form using diagrams, and treats in detail all currently used drugs for inhalation, intravenous, rectal and local anesthesia. The first half of the book gives the general reactions of the drugs as a whole and their effects upon the nervous, circulatory and respiratory systems. Their chemistry is discussed in relation to pharmacology. In the latter half of the book, again using diagrams, the author gives a complete summary of each drug from the standpoint of the history, preparation, solubility, impurities, concentration and general systemic effects. A brief summary of analeptic, premedicating drugs is given, also a resumé of inorganic gases, the chemistry and physics of gases. The extensive bibliography deserves mention, along with a glossary of technical terms and a table of dosage of drugs used in anesthesia.

The value of this book is augmented considerably by its fine index, its large pages and the author's unique way of summarizing scientific facts.

RECENT ADVANCES IN ANESTHESIA, 3rd edition. By C. Langton Hewer, M.B., B.S. (London). 321 pages, illustrated. The Blakiston Co., Philadelphia, 1939. Presented by Mr. W. H. Stephenson of the J. H. Emerson Co., Cambridge, Mass.

All through this concise collection of the important advances made during the past few years, the reader is aware of the fact that the constant increase in the complexity and severity of operations has demanded more and more from anesthesia, and a high degree of skill from the anesthetist. One hundred and thirty-two cuts include clear illustrations of the technique involved in the more recent methods of analgesia and anesthesia.

HOSPITAL ORGANIZATION AND MANAGEMENT, by Malcolm H. MacEachern, M.D. Associate Director of the American College of Surgeons. 968 pages, illustrated. Physicians' Record Company, Chicago, 1936. Presented by Malcolm T. MacEachern, M.D.

Ever since its publication this book has been in demand by hospitals everywhere. The universal attitude toward its author has been ably expressed by Bert W. Caldwell, M.D., Executive Secretary of the American Hospital Association, "There is no person living who can speak with greater authority, or with a more intimate knowledge of hospital operation, whether great or small, than the author of this excellent textbook on 'Hospital Organization and Management.' Dr. Malcolm T. MacEachern, the distinguished director of Hospital Standardization of the American College of Surgeons, has spent a lifetime in the study and direction of hospitals. He has visited more hospitals, met more of their administrators and has been consulted on more hospital problems than any man in or out of the hospital field."

AIDS TO ANESTHESIA, by Major Victor Goldman, L.R.C.P., M.R.C.S., D.A., R.A.M.C., Anesthetist, Queen Mary's Hospital, Stratford;Honorary Anesthetist, Sutton and Cheam Hospital; Visiting Anesthetist, Eastman Dental Clinic, England. Printed in Great Britain, Wm. Wood & Co., Baltimore. 227 pages. Presented by the anesthesia staff of Mount Carmel Mercy Hospital, Detroit, Michigan.

The purpose of this valuable handbook is well told in its preface as follows: "Since the days of mediaeval surgery, when alcoholic intoxication was the only known method of rendering a patient insensible to pain, medical science has labored ceaselessly to discover drugs and fresh methods for the alleviation of human suffering on the operating table.

"Anesthesia has two main purposes— the maintenance of life during an operation and the prevention of pain from the surgeon's knife. Those who administer anesthetics must always keep these facts uppermost in their minds.

"It is the purpose of this 'Aid' to present in a concise form the essentials that must be known to anyone who administers an anesthetic agent, whether a recently qualified house surgeon, a dental surgeon, a student or a midwife, in order to ensure that patients may be operated upon with the greatest safety.

"In a handbook of this size it is only possible to describe those methods and apparatus most likely to be met with in private and hospital practice, and to give a brief description of recent developments which are likely to come into general use.

"While detailed references would be out of place in a book such as this, it will be appreciated that many standard works on the subject have been consulted in its preparation."

BOUND MAGAZINES GIVEN BY MICHIGAN ASSOCIATION

One of the first official acts of the new board of directors of the Michigan Association of Nurse Anesthetists after the Tri-State meeting in Chicago last May was to vote a contribution to the headquarters library. Consequently, the American Association is richer by having bound volumes of "Anesthesia and Analgesia" for the years 1940 and 1941 as a gift from Michigan. Almost any day at Headquarters you may find visiting student nurse anesthetists thumbing their way through the pages of these interesting volumes and jotting down notes for future reference.

GOOD CHEER IN SERVICE

Letters from the ever-growing number of members in the armed forces are filled with enthusiasm for their work and their associates. Here is an excerpt from a letter which is typical. It was written by the former president of the Alabama State Association of Nurse Anesthetists, Miss Hattie Barnes. "We have the nicest chief nurse to work with, and being on special detail makes everything just wonderful. And such a grand hospital!" Miss Barnes is stationed at the U. S. Naval Hospital, Charleston, South Carolina.

UTAH NOW ORGANIZED

Adding Utah to the list of organized states brings the total up to thirty states having their own state association organization as part of the American Association. The Utah state officers are very active and one of their first thoughts was the purchase of defense bonds.

The Secretary-Treasurer of the California association, Miss Nan E. Snodgrass writes, "We have bought three $100.00 war bonds." And, from the secretary of the New York State Association, Miss Janet Dougan, "Two war bonds valued at $100.00 each were purchased by the New York State Association."

It is inspiring to note how the state associations are coming to the front in the matter of purchasing War Bonds and stamps. When possible we like to publish these facts in the Bulletin and if your association has been overlooked, let us hear from you.

NEW TRANSFER SYSTEM FOR ORGANIZED STATES

The fine spirit of cooperation by state association officers in carrying on volunteer work has always been appreciated by the Board of Trustees and by the entire membership. With the thought of unifying the work between the state association officers and Headquarters, one of the projects planned by the Chairman of the Committee on Public Relations, Miss Hazel Blanchard, Troy, New York, is a new system of transfers to be used in organized states.

First in the minds of this committee chairman and her committee was to create a time-saving plan that state officers would enjoy using, and one that would give an accurate check on all members.

Here is the plan:

1. Members (in organized states) wishing to transfer, must make application in writing to the state association secretary where she was last a member.
2. The state association secretary will send a white blank (furnished by headquarters) to the state to which member requested transfer; the yellow blank will go to Headquarters, and a pink copy will be retained by the state secretary. (These blanks are made in triplicate, book form and in three colors.)
3. Headquarters will issue a "Transfer Card' to the member and a "Notice of Issuance of Transfer Card" to the secretary of the state association to which member is transferring.
4. The member will present the "Transfer Card" to the secretary of the state association to which she has transferred.

The triplicate book form in three colors is being mailed to all state association secretaries. When another book is needed it may be ordered from headquarters at nominal cost.

Each state association secretary will be sent a sample of the two cards used in completing the transfer, that is, the "Transfer Card" which Headquarters issues to the member requesting transfer, and, the "Notice of Issuance of Transfer Card" which Headquarters sends to the state to which member is transferring. A transfer is not in effect until the member presents her transfer card to the secretary of the state in which she desired membership.

This system applies only to members in organized states, but occasionally there is a member transferring from an organized state to an unorganized, in which case the state secretary will correspond directly with Headquarters. Members in unorganized states will continue to write Headquarters direct when making a transfer.

OFFICERS

AMERICAN ASSOCIATION OF NURSE ANESTHETISTS

President	Helen Lamb Barnes Hospital, St. Louis, Mo.
Vice-President	Rosalie C. McDonald Emory University Hospital Emory University, Ga.
Treasurer	Gertrude L. Fife University Hospitals, Cleveland, Ohio
Trustees	Helen Lamb Rosalie C. McDonald Gertrude L. Fife Agatha C. Hodgins Miriam G. Shupp Hazel Blanchard Lucy E. Richards Rose G. Donavan

ACTIVITIES OF STATE ASSOCIATIONS

CALIFORNIA

The Association is planning to institute a refresher course to be given in the fall.

Officers elected at May meeting

President
Mrs. Jean H. Pray
426 — 29th Street, Oakland

First Vice-President
Mrs. Gertrude H. Pringle
65 Buena Vista Ave., San Francisco

Second Vice-President
Marie L. Hebert
518 Vine St., Stockton

Secretary-Treasurer
Mrs. Nan E. Snodgrass
829 Leavenworth St., San Francisco

Trustees:
Olga E. Schreiber
Martha Bichel
Mabel P. Cauthorn

MRS. JEAN H. PRAY
President

ILLINOIS

Annual meeting held in Chicago May 7, 1942, in conjunction with Tri-State Nurse Anesthetists' Association.

Officers elected:

President	Anna Willenborg Mercy Hospital, Chicago
First-Vice-President	Gladys M. Hoffman Englewood Hospital, Chicago
Second Vice-President	Mrs. Mae B. Cameron Ravenswood Hospital, Chicago
Secretary	Mrs. Marjorie Baker 2026 N. Burling St., Chicago
Treasurer	Exire O'Day Ravenswood Hospital, Chicago
Historian	Edith H. Holmes Norwegian-American Hospital, Chicago
Trustees:	Jean Roth Nelle G. Vincent Sister M. Borromea

INDIANA

Annual meeting held in Chicago May 6, 1942, in conjunction with Tri-State Nurse Anesthetists' Assembly.

Secretary-Treasurer's report showed balance of $104.94 on hand, with twenty active members and one associate. It was voted to purchase a $50 U. S. War Bond.

Officers elected:

President	Ruth H. Hane 709 Kinnaird Avenue, Fort Wayne
Vice-President	Helen M. Reitz 319 W. Louisiana St., Evansville
Secretary-Treasurer	Agnes M. Lange 326 Arcadia Court, Fort Wayne
Trustees:	Margaret P. Church Thelma A. Deane Wilma J. Axel

IOWA

Annual meeting held April 27-29, 1942, at Des Moines. Following officers elected:

President	Louise Schwarting Lutheran Hospital, Fort Dodge
Vice-President	Sister M. Philomena St. Vincent's Hospital, Sioux City
Secretary	Mrs. Lucy M. Brabec Mercy Hospital, Fort Dodge
Treasurer	Gladys M. Sulis Ellsworth Municipal Hospital, Iowa Falls
Trustees:	Helen Kiefer Sister M. Francella Lorna Krogstad

KANSAS

Annual meeting, scheduled to be held in conjunction with Mid-West Hospital Association convention, has been postponed because of the emergency, and will be held in Wichita in the fall, following convention of the American Association of Nurse Anesthetists in St. Louis.

MICHIGAN

Annual meeting held in Chicago May 7, 1942, in conjunction with Tri-State Nurse Anesthetists' Assembly.

It was voted to contribute $11 to Headquarters library for 1940-41 bound copies of *Current Researches in Analgesia and Anesthesia.*

Officers elected:

President	Lillian G. Baird University of Michigan Hospital, Ann Arbor
First Vice-President	Ethel M. Moir Henry Ford Hospital, Detroit
Second Vice-President	A. Maude Galbraith Butterworth Hospital, Grand Rapids
Secretary-Treasurer	Ione Wessinger Henry Ford Hospital, Detroit
Trustees:	Kathleen Sturgeon E. Louise Ilgenfritz

State meetings will be resumed in November.

MINNESOTA

Annual meeting held in Rochester, Minn., May 25, 1942, in conjunction with Minnesota Hospital Association and allied groups; attendance twenty-two members and ten visitors. Program was published in full in May issue of Bulletin.

Delegates appointed to attend annual meeting of American Association of Nurse Anesthetists in St. Louis in October:

Florence McQuillen	Mayo Clinic, Rochester
Marie Petrowske	Ancker Hospital, St. Paul
Ruth Walthers	Minneapolis General Hospital, Minneapolis
Alternates:	
Palma A. Anderson	Deaconess Hospital, Minneapolis
Katharine D. Jurgensen	Swedish Hospital, Minneapolis
Sarah A. Retrum	Miller Hospital, St. Paul

Report of Secretary

New members 1941-42	13	
Transfers to Minnesota Association	12	
Transfers from Minnesota Association	20	
Deaths	1	
Delinquent members	3	
Resigned	1	
Applications pending in A. A. N. A. committee	6	
Total active membership		79

Treasurer reported extra receipts for treasury, consisting of $40 received from "Quiz of the Twin Cities" radio program participated in by Minnesota anesthetists, and $35 in donations from members.

Following the meeting the group attended a tea at the Woman's Club given by the Rochester anesthetists.

Officers elected:

President	Palma A. Anderson Deaconess Hospital, Minneapolis
Vice-President	Ruth E. Bergman Northwestern Hospital, Minneapolis
Secretary	Hazel J. Peterson Fairview Hospital, Minneapolis
Treasurer	Elizabeth L. Gaertner St. Mary's Hospital, Minneapolis
Trustees:	Ethel Willcutt Marie Petrowske

NEW JERSEY

Annual meeting held in Trenton May 20, 1942. Following papers read:

"Anesthesia in Relation to Heart Disease"
Estelle Kleiber, M.D., S.A.C.P.,
St. Peter's General Hospital, New Brunswick, N. J.

"Dental Anesthesia"
Ruth E. Strom, 300 Carteret Place, Orange, N. J.

Officers elected:

President		Mrs. Florence V. Hale St. Peter's General Hospital, New Brunswick
Vice-President		Mrs. Helen F. White Beth Israel Hospital, Newark
Secretary		Bebe M. Horwitt St. Peter's General Hospital, New Brunswick
Treasurer		Ada C. Kalnoske State Hospital, Marlboro
Trustees:	3-year	Della L. Mifflin
	2-year	Dorothy Ball
	1-year	Martha E. Lowery
	1-year	Leona D. Woram

NEW YORK

First sessions of annual meeting of New York State Association held in Buffalo May 21, 1942, concluding sessions in Rochester on May 22. Program was published in full in May issue.

At banquet Mr. Dreier, a foreign correspondent recently returned from Germany, gave a stirring talk on present conditions in Europe.

The New York Association has purchased U. S. War Bonds amounting to $200.

Officers elected:

President	Frances Hess Long Island College Hospital, Brooklyn
Vice-President	Gertrude Steffen Long Island College Hospital, Brooklyn

Secretary	Janet B. Dougan Morrisania Hospital, Bronx
Treasurer	Mrs. Michael Slovak 12 Union St., Schenectady
Trustees:	Pauline Lapinski Martha T. Ziegler Genevieve Bush

OHIO

Annual meeting held April 22, 1942, in Columbus, in conjunction with Ohio Hospital Association; thirty-three members and guests in attendance. Following papers were read:

"Cyclopropane Anesthesia"
Dorothy M. Boyle, St. Thomas Hospital, Akron

"Hazards in Anesthesia"
Daisy A. Parker, Youngstown Hospital, N. S. Unit, Youngstown

"Pentothal Anesthesia"
George J. Thomas, M.D., St. Francis Hospital, Pittsburgh

"Obstetrical Anesthesia and Analgesia"
Alven M. Weil, M.D., City Hospital, Akron
(see page 149 this issue)

Hattie Pugh, Director University of Cincinnati Hospital Unit, was guest speaker.

Report of Secretary

Applications for membership received	20	
Applications accepted	16	
Applications pending	4	
Transferred from active to associate membership	1	
Transferred from Ohio Association	10	
Transferred to Ohio Association	10	
Delinquent members	15	
Resignations	2	
Members in good standing		100

Officers elected:

President	Mildred Sauers City Hospital, Cleveland
First Vice-President	Sister M. Benignus Mercy Hospital, Hamilton
Second Vice-President	Leila P. Wise St. Elizabeth's Hospital, Dayton
Secretary-Treasurer	Helen U. Carney Youngstown Hospital, N. S. Unit, Youngstown
Trustees:	Emilie Kaiser Myrn E. Momeyer

OREGON

April meeting held at St. Vincent's Hospital, Portland. Miss Aura Hakala, a student from the School of Anesthesia, University of Oregon, read paper entitled "Technique of Cyclopropane Administration" which she had presented at annual meeting of the Washington State Association in Seattle.

It was voted to purchase U. S. War Bonds amounting to $100. Delinquent members will not receive Oregon Association Bulletin *"Oanagram"* hereafter.

Annual meeting was held in connection with a banquet at the Campbell Court Hotel, Portland, on May 23, 1942. Motif of the decorations was the national colors. Miss Eleanor Thompson, Director Public Health Educational Department of University of Oregon Medical School, related some of her experiences in Europe during the first World War.

Officers elected:

President	Mrs. Josephine B. Bunch 4030 S. W. Condor Ave., Portland
First Vice-President	Olivia Brye Emanuel Hospital, Portland
Second Vice-President	Mrs. Florence T. Shelton Box 376, Portland
Secretary	Marion F. Spinning 1715 N. E. 45th Ave., Portland
Treasurer	Mrs. Hazel I. Wilhelm 3424 N. E. Tillamook St., Portland
Historian	Sister Agnes de Boheme St. Vincent's Hospital, Portland
Trustee	Martha Schwartz

UTAH

Utah organization is now affiliated with the American Association.

Regular meeting held July 1, 1942, at Utah Valley Hospital, Provo, seven present. It was voted to purchase a $25 U. S. War Bond.

Miss Gladys Hood, assisted by Miss Twomey, served a delicious picnic lunch on the lawn of the Nurses' Home, and an accompanying musical program was much enjoyed.

VIRGINIA

Annual meeting held at John Marshall Hotel, Richmond, April 28, 1942, nineteen members in attendance.

Mary A. Beebe, Medical College of Virginia Hospital, Richmond, presided, and address of welcome was given by President, Georgia Scott. Dr. Evert Evans of Richmond gave interesting talk on "Different Types of Anesthetic Drugs, and The Future Nurse Anesthetist and Her Status in the Present Defense Program." Following business meeting a round table was conducted by Miss Beebe.

Officers elected:

President	Georgia C. Scott Lewis-Gale Hospital, Roanoke
Vice-President	Mrs. Minnie F. Payne University of Virginia Hospital, Charlottesville
Secretary-Treasurer	Elsie V. Lawhorne
Trustees:	Virginia Baptist Hospital, Lynchburg
1-year	Cordelia B. Bakes Mrs. Elizabeth D. Navarro

WISCONSIN

Annual meeting was held in Chicago May 6-8, 1942, in conjunction with Tri-State Nurse Anesthetists' Assembly.

Officers elected:

President	Mabel E. Johnson 2633 N. 7th St., Sheboygan
First Vice-President	Marie Kraft Methodist Hospital, Madison
Second Vice-President	Mrs. Helen C. Faraher Madison General Hospital, Madison
Secretary	Julia I. Campbell Evangelical Deaconess Hospital, Milwaukee
Treasurer	Emma C. Tinker 1040 N. 15th St., Milwaukee
Trustees:	Esther E. Edwards Helen M. Miller Leone A. Thielen Grace-Mary Teske Sister M. Bernadette Mary Ann Yanulis

TRI-STATE NURSE ANESTHETISTS ASSEMBLY OF ILLINOIS, INDIANA, MICHIGAN AND WISCONSIN

Second annual meeting held May 6, 7, and 8, 1942, at Stevens Hotel, Chicago, in conjunction with Tri-State Hospital Conference. Program was published in full in May, 1942, issue of Bulletin.

Mae B. Cameron, Ravenswood Hospital, Chicago, Illinois, was re-elected Chairman for another year. Edith McGinley, Ravenswood Hospital, Chicago, Secretary-Treasurer for one year. All meetings were attended by good representation from each state of the Assembly.

MID-WEST MEETING

Spring meeting of Mid-West anesthetists has been postponed because of the emergency.

TENTATIVE PROGRAM

TENTH ANNUAL MEETING

AMERICAN ASSOCIATION OF NURSE ANESTHETISTS
ST. LOUIS, MISSOURI

October 12-15, 1942

Held in conjunction with American Hospital Association
HOTEL HEADQUARTERS — STATLER HOTEL

Monday, October 12

9:00 A.M. to 12:00 noon

Registration
Visiting Exhibits

GENERAL SESSION

2:00 to 4:30 P.M.

Hazel Blanchard, Presiding
Troy, N. Y.

Invocation
The Rt. Rev. William Scarlett, Bishop of Missouri

Address of Welcome
The Hon. William D. Becker
Mayor of St. Louis

Greetings from the American Hospital Association
Basil C. MacLean, M.D., President
Director, Strong Memorial Hospital, Rochester, N. Y.

"The Surgeon's Responsibility in Anesthesia"
Nathan A. Womack, M.D.
Associate Professor of Surgery, Washington University
School of Medicine, St. Louis, Mo.

"The Therapeutic Value of Oxygen"
Esther C. Myers, Mount Carmel Mercy Hospital, Detroit, Mich.

"Ethics for the Anesthetist"
Sister John Edward Kaiser, Good Samaritan Hospital, Cincinnati, Ohio

TEA

4:30 to 6:00 P.M.

Tuesday, October 13

BUSINESS SESSION

9:00 A.M to 12:00 noon

Helen Lamb, President, Presiding
Barnes Hospital, St. Louis

Roll Call

Approval of Minutes

Reports—

President	Helen Lamb
Executive Secretary	Mary Elizabeth Appel
Treasurer	Gertrude L. Fife
Historian	Leone M. Myers
Standing Committees:	
Membership	Lucy E. Richards
Revisions	Verna M. Rice
Publishing	Barbara Brown
Public Relations	Hazel Blanchard
Nominating	Esther J. Meil
Curriculum	Rosalie C. McDonald
Educational	Gertrude L. Fife
Educational Exhibit	Esther C. Myers
Trust Fund	Verna M. Rice
Executive	Helen Lamb
Special Committee:	
Defense Program	Hazel Blanchard

GENERAL SESSION

2:00 to 4:30 P.M.

Mildred Hodges Presiding
President, Missouri Association of Nurse Anesthetists
Missouri Baptist Hospital, St. Louis

"Obstetrical Anesthesia and Analgesia"
Frances Kocklauner, University Hospitals, Cleveland, Ohio
(Subject to be announced)
Evarts A. Graham, M.D.
Bixby Professor of Surgery, Washington University School of Medicine; Surgeon-in-Chief, Barnes Hospital, St. Louis
"Anesthesia in Relation to Neurosurgery"
Ernest Sachs, M.D.
Professor of Neurosurgery, Washington University School of Medicine, St. Louis
"The Use of U. S. P. Bulk Ether for Anesthesia"
Albert Snoke, M.D.
Assistant Director, Strong Memorial Hospital, Rochester, N. Y.
Discussion by Dr. L. H. Wright, New York City

Wednesday, October 14

MEETING OF ADVISORY COUNCIL

8:00 to 10:15 A.M.

Hazel Blanchard Presiding
Chairman, Public Relations Committee

GENERAL SESSION

10:15 A.M. to 12:00 noon

Edith Marcum Presiding
Jewish Hospital, St. Louis

PANEL DISCUSSION:

Coördinator	Miriam G. Shupp, Strong Memorial Hospital, Rochester, N. Y.
Hospital Superintendent	Florence King, Jewish Hospital, St. Louis
Surgeon	Duff Allen, M.D., Associate Professor of Surgery, Washington University School of Medicine, St. Louis
Anesthetist	Rosalie C. McDonald, Emory University Hospital, Emory University, Ga.
Operating Room Supervisor	Lola Baird, Barnes Hospital, St. Louis
Superintendent of Nurses	Miss A. Johnson, Barnes Hospital, St. Louis

GENERAL SESSION

2:00 to 4:30 P.M.

Verda Huff Presiding
Carrollton, Mo.

Paper on Physiology
(Speaker to be announced)
"Anesthesia in Perioral Endoscopy and Laryngeal Surgery" (with slides)
Rowena Kling, New Orleans, La.
"The Nurse Anesthetist in the Hospital"
Frank Bradley, M.D.
Superintendent, Barnes Hospital, St. Louis
"The Army Nurse Anesthetist"
Thora L. Plummer, Fort McPherson, Ga.

Banquet — Hotel Statler

7:00 P.M.

(Speaker to be announced)

Thursday, October 15

Visits to Clinics

8:00 to 10:00 A.M.

INSTRUCTORS' SESSION

10:00 A.M. to 12:30 noon

Gertrude L. Fife Presiding
Chairman Educational Committee
University Hospitals of Cleveland

BUSINESS SESSION

2:00 to 4:30 P.M.

Helen Lamb, President, Presiding

Unfinished Business
Report of Tellers
Introduction of New Officers

Members American Association of Nurse Anesthetists

July 15, 1942

ALABAMA

Allen, Mrs. J. Edith	T. C. I. Hospital	Fairfield
Ballintine, Ruth H.	Huntsville Hospital	Huntsville
Bishop, Frances	1012 So. 26th St.	Birmingham
Boyles, Irene	West End Baptist Hospital	Birmingham
Bradford, Elizabeth	South Highlands Infirmary	Birmingham
Burg, Mrs. Flora M.	Frazier-Ellis Hospital	Dothan
Burnes, Sarah Ola	Huntsville Hospital	Huntsville
Campbell, Bernice	1131 — 28th St., N.	Birmingham
Cimivera, Mrs. Irene O.	4 Morning View	Montgomery
Cook, Mary E.	Colbert County Hospital	Sheffield
Couch, Inez	Citizens Hospital	Talladega
Davis, Mrs. Nathalie	401 E. Main St.	Dothan
Egan, Mrs. Pierina G.	Box 584	Fayette
Engelland, Violet E.	Hillman Hospital	Birmingham
Foust, Alma C.	Colbert County Hospital	Sheffield
Fuller, Ella	Claridge Manor	Birmingham
Gamble, Flossie	Selma Baptist Hospital	Selma
Gandy, Nell	South Highlands Infirmary	Birmingham
Hicks, Mrs. Ima M.	Norwood Hospital	Birmingham
Hill, Mrs. Emily M.	Hill Hospital	York
Hood, Cleta M.	Jefferson Hospital	Birmingham
Hughes, Mrs. Ruth H.**	2708 — 14th Ave., S.	Birmingham
Kilpatrick, Wanita***	1606 So. 12th Ave.	Birmingham
Link, Amanda	Huntsville Hospital	Huntsville
Long, Mrs. Elsie O.	R. D. 4, Box 82	Birmingham
Maenner, Rosa E.	59 Le Moyne Place	Mobile
Moglia, Lydia	West End Baptist Hospital	Birmingham
Neal, Mrs. Margie B.	Highland Hospital	Birmingham
Nelson, Thelma	Jefferson Co. T. B. Sanatorium	Birmingham
O'Dell, Mrs. Mary J.	9 Winthrop Ave.	Birmingham
Orr, Mrs. Zadie L.	Garner Hospital	Anniston
Parks, Mary B.	Druid City Hospital	Tuscaloosa
Patterson, Dorothy D.	1518 N. 23rd St.	Birmingham
Philen, Delle I.	Highland Baptist Hospital	Birmingham
Rice, Verna M.	2060 St. Stephens Road	Mobile
Rushing, Mrs. Evelyn P.	Highland Baptist Hospital	Birmingham
Sr. M. Paulette Foley	Holy Name of Jesus Hospital	Gadsden
Scott, Mrs. Lida E.	c/o Captain C. W. Scott, Operations Div., Arsenal	Huntsville
Seeberg, Mrs. Molly L.	Jefferson Hospital	Birmingham
Sharpe, Marion M.		Headland
Smith, Marie Joy	Jefferson Hospital	Birmingham
Sturkie, Clyde	Druid City Hospital	Tuscaloosa
Traber, Anna	2020 So. 11th St.	Birmingham
Waldhaus, Edith A.	Norwood Hospital	Birmingham
Williams, Eula Frances	Hillman Hospital	Birmingham
Wilson, Bess	King Mem'l Hospital	Selma

ARIZONA

Christian, Marion McB.	Cochise County Hospital	Douglas
Dearing, Lennie B.	Box 84	Flagstaff
Hallberg, Caroline B.	U. S. Govt. Service	Winslow
Ferguson, Geraldine V.	Station Hosp., Army Air Base	Tucson
Jefferson, Mrs. Frances M.	907-8 Nat'l Valley Bank Bldg.	Tucson
Sprecher, Esther M.	P. O. Box 221	Holbrook
Tunnell, Mrs. Gladys K.***	Box 508	Tucson

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ARKANSAS

Atwood, Eva**	Box 330	Ft. Smith
Brown, Martha	Davis Hospital	Pine Bluff
Cox, D. Merle	Base Hosp., Camp Chaffee	Ft. Smith
Davis, Mrs. Olive Harder	1210 Schiller St.	Little Rock
Deloach, Mary T.	Cora Donnell Hospital	Prescott
Eldred, Ruth		Sulphur Springs
England, Lela Belle	Wakenight Hospital	Searcy
Green, Alice	Wakenight Hospital	Searcy
Grissette, Maida M.	Temporary: c/o Dr. C. H. Dickenson	Conway
Junkin, Mrs. Martha M.	2230 South X St.	Ft. Smith
Martin, Bessie Joe	St. Bernard's Hospital	Jonesboro
Maysarros, Ann	Army and Navy Gen'l Hosp.	Hot Springs
Petty, Blanche D.	1863 Chester St.	Little Rock
Peterson, Dorothy L.	Nurses' Quarters	Camp Robinson
Phillips, Mary Ellen	St. Mary's Hospital	Russellville
Raper, Edith W.	Trinity Hospital	Little Rock
Reynolds, Catherine	Sparks Memorial Hospital	Ft. Smith
Tate, Mrs. Thelma R.	St. Louis Southw. Ry. Hosp.	Texarkana
Thomson, Jessie M.	5200 Edgewood Drive	Little Rock
Wakenight, Ellen G.	Wakenight Hospital	Searcy

CALIFORNIA

Alblinger, Eugenia L.	St. Mary's Hospital	San Francisco
Andersen, Emmeline	4023 H. St.	Sacramento
Anderson, Vera M.	390 Central Ave.	Oakland
Arent, Madeleine	Providence Hospital	Oakland
Astrosky, Mrs. Mary B.	1741 Chestnut Ave.	Long Beach
Aynes, Edith A., A. N. C.	Port of Embarkation, Fort Mason	San Francisco
Bagley, Mrs. Lettie E.	331 S. School St.	Grass Valley
Baldwin, Mrs. Louise H.	St. Helena Sanitarium & Hosp.	Sanitarium
Barbee, Mrs. Genevieve	1318 Pine St.	Martinez
Barker, Betty	Southern Pacific Hospital	San Francisco
Bartron, Kathryn	Saint Francis Hospital	San Francisco
Bates, Alta Alice	3000 Regent St.	Berkeley
Beausoleil, Anne	238 Chester Ave.	San Francisco
Berry, Comfort A.	Station Hospital, Nurses Quarters	Fort Ord
Bichel, Martha	Franklin Hospital	San Francisco
Bishop, Mrs. Anna K.***	2243 Fulton St.	San Francisco
Bolton, Gladys M.	Saint Francis Hospital	San Francisco
Botsford, Daisy G.	3865 Mentone Ave.	Culver City
Bryson, Adelyne	Mercy Hospital	Sacramento
Bulin, Emma J.	1537 Jackson St.	Oakland
Butler, Teresa	234 E. H. St.	Benicia
Casey, Veronica	2609—22nd St.	San Francisco
Cauthorn, Mrs. Mabel P.	318 Elm St.	San Mateo
Chartier, Jean	Mary's Help Hospital	San Francisco
Clark, Mrs. Bertha M.	837-450 Sutter St.	San Francisco
Clifford, Mrs. Louise M.	San Joaquin Hospital	French Camp
Clutton, Evangeline M.	Peralta Hospital	Oakland
Conlon, Mrs. Louise M.	Monterey Hospital	Monterey
Costa, Rosa	Sonora Hospital	Sonora
Culver, Edith	510 Pala Way	Sacramento
Deering, Bessie G.	Sutter Hospital	Sacramento
Diebold, Ruth	Mary's Help Hospital	San Francisco
Donley, Helene	760 University Ave.	Palo Alto
Doran, Irene	Mt. Zion Hospital	San Francisco

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Doster, Mrs. Ella R. C.	Box 334	Yuba City
Duncan, Cleo	East Oakland Hospital	Oakland
Edwards, Mrs. Anna K.	1664 Lafayette Rd.	Los Angeles
Eilertson, Elanda J.	4241 U St.	Sacramento
Emery, Alda M.	Station Hospital	Camp Roberts
Foster, Orpha V.	U. S. Naval Hospital	San Diego
Gannon, Mrs. Viola R.	Saint Francis Hospital	San Francisco
Gentle, Marjorie M.	Peralta Hospital	Oakland
Gibson, Frances	3508 Webster St.	Oakland
Graybeal, Ellen S.	4085 Hillcrest Drive	San Diego
Gorman, Mrs. Ada T.	801—39th Ave.	San Francisco
Graham, Mrs. Katherine	San Francisco City & County Hospital	San Francisco
Guptill, Martha M.	Peralta Hospital	Oakland
Hansing, Bertha V.	Samuel Merritt Hospital	Oakland
Hanson, Mrs. Mell J.	Hahneman Hospital	San Francisco
Hawk, Eleanor R.	Samuel Merritt Hospital	Oakland
Hebert, Marie Lya	Box 2116, (518 W. Vine St.)	Stockton
Henne, Bessie M.	Camp San Luis Obispo	
Hoover, Mrs. Zola P.	Rte. 7, Box 3434	Sacramento
Hoyt, Margaret L.	Glendale Sanitarium & Hosp.	Glendale
Huntimer, W. Serena	St. Mary's Hospital	San Francisco
Hurley, Frances C.	Station Hospital	Victorville
Inghram, Mrs. Elsie L.	341 Acacia Ave.	San Bruno
Jackson, Mrs. Estelle	2150 First Ave.	San Diego
Jacobs, Marie Carole	Samuel Merritt Hospital	Oakland
Jevne, Mrs. Sophie	6331 Hollywood Blvd.	Hollywood
Johnson, Mrs. Louise G.	240 Hyde St.	San Francisco
Jones, Edith	St. Francis Hospital	San Francisco
Jons, Elizabeth S.	St. Mary's Hospital	San Francisco
Keenan, Katherine	St. Mary's Hospital	San Francisco
Kelley, Pansy Mae	San Joaquin Hospital	French Camp
Kempers, Norma C.	217 E. Washington St.	Orange
Kittleson, Beatrice***	89 Via Buena Vista	Monterey
Krekeler, Mrs. Irene F.***	737 Rodney Dr.	San Leandro
Lagan, Mrs. Marian L.	5 Prado St.	San Francisco
Landis, Mrs. Edna S.	Chico Hospital	Chico
LaRocque, Dorothy	St. Francis Hospital	Santa Barbara
Lofstedt, Anna Regina	578—34th St.	Oakland
Lutz, Elizabeth A.	726 — 4th St.	Marysville
McCoppin, Margaret	Sutter Hospital	Sacramento
McDonald, Nell Jane	St. Mary's Hosp.	San Francisco
Mahoney, Alice I.	3075 Harrington Ave.	Los Angeles
Malamphy, May	Southern Pacific Hosp.	San Francisco
Marchioni, Linda M.	Franklin Hospital	San Francisco
Mathews, Margaret Mary	3131 Lincoln Way	San Francisco
Mayer, Mrs. Margott***	2826 Orchard Ave.	Los Angeles
Morgan, Mrs. Gay***	807—39th Ave.	San Francisco
Mraz, Kathryn A.	3932 Eye St.	Sacramento
Nelson, Dagmar A.	170 S. Mountain View Ave.	Los Angeles
New, M. Opal	San Joaquin General Hosp.	French Camp
Newman, Mrs. Elizabeth	1451 Sacramento St.	San Francisco
Olson, Mrs. Mary A. F.	3726 Clinton Ave.	San Diego
O'Neil, May A.	Mary's Help Hospital	San Francisco
Palmer, Mrs. Flora G.	2790 Land Park Drive	Sacramento
Pence, Mada	716—3d St.	Woodland
Peters, Lillian L.	San Francisco City-Co'ty Hosp.	San Francisco
Peterson, Edith L.	740½ Manhattan Pl.	Los Angeles
Peterson, Edna Mildred	Westwood Hospital	Westwood
Piercy, Mrs. Margaretta	San Francisco City-Co'ty Hosp.	San Francisco

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Pray, Mrs. Jean H.*	Peralta Hospital	Oakland
Pringle, Mrs. Gertrude N.	65 Buena Vista Ave.	San Francisco
Quarles, Mrs. Myra B.	Children's Hospital of the East Bay	Oakland
Rademacher, Verna L.	San Joaquin General Hosp.	French Camp
Roberts, Mrs. Mary Alta	East Oakland Hospital	Oakland
Roberts, Mrs. Mildred	Camp Grobel	Standard
Rogers, Margaret C.	1708 Pacific Ave.	Bakersfield
Root, Mable G.	Mercy Hospital	Bakersfield
Rowland, Mrs. Mae	Alameda Hospital	Alameda
Ruse, Mrs. Lala R.	3355 "E" St.	San Bernardino
Russell, Helena V.	Franklin Hospital	San Francisco
Sr. M. Borgia Gabrys	St. Joseph's Hospital	San Francisco
Sr. Mary Columbo	St. Elizabeth Hospital	Red Bluff
Sr. M. Oswalda Weiderkehr	St. Francis Hospital	Santa Barbara
Sr. M. Remegia Weiderkehr	St. Joseph's Hospital	San Francisco
Salinsky, Mary Jane	St. Luke's Hospital	San Francisco
Schmidt, Vera G.		Camp Cook
Schreiber, Olga E.	Woodland Clinic	Woodland
Schultz, Adella Ida	518—44th St.	Oakland
Schwartz, Martha M.		San Diego
Schwarz, Mrs. Elizabeth H.	2626—35th Ave.	SanFrancisco
Seroy, Jeannette M.	St. Joseph's Hospital	Stockton
Shipper, Evelyn Ruth	845 California St.	San Francisco
Shockites, Helen A.	Woodland Clinic	Woodland
Shorrey, Mrs. Margaret	St. Francis Hospital	San Francisco
Singleton, Adele P.	Stanislaus County Hospital	Modesto
Slattendale, Julo A.	Mt. Zion Hospital	San Francisco
Smith, Mrs. Louise A.	Samuel Merritt Hospital	Oakland
Smith, Vieve L.	U. S. Marine Hospital	San Francisco
Snail, Mrs. Alice E.	Sonora Hospital	Sonora
Snodgrass, Mrs. Nan E.**	Saint Francis Hospital	San Francisco
Snyder Myrta E.	Woodland Clinic	Woodland
Spencer, Esther Jane	No. 2110—450 Sutter St.	San Francisco
Stevenson, Mrs. Mary J. R.	Franklin Hospital	San Francisco
Stone, Elva	2648 E. 14th St.	Oakland
Thomas, Clara Behling	Colusa Memorial Hospital	Colusa
Timura, Mrs. Myrna L.	2820—14th Ave.	Oakland
Tynan, Gertrude L.***	Rt. 1, Box 292	Manteca
Vortman, Helen A.	1848—51st St.	Sacramento
Walsh, Mrs. Irene Deako	371 Hawthorne Ave.	Oakland
Ward, Mrs. Eloise S.	2610 Front St.	San Diego
Watkins, Kathryn	Samuel Merritt Hospital	Oakland
Wells, Mrs. Josephine K.	712 E. Oak St.	Stockton
White, Isabelle W.	Alameda Hospital	Alameda
Wilkinson, Irma	San Francisco City & County	San Francisco
Willey, Alice V.	Westwood Hospital	Westwood, Lassen County
Wilson, Eva M.	Peralta Hospital	Oakland
Winkjer, Olga	Mercy Hospital	Sacramento
Winter, Mrs. Cecelia M.	Cottage Hospital	Santa Barbara
Wright, Ruth	3932 Eye St.	Sacramento
Yarnall, Catherine E.***	U. S. Naval Hospital	Treasure Island San Francisco

COLORADO

Allen, Mrs. Louise B.	1212 Cherry St.	Denver
Carpenter, Mrs. May M.	2370 Ash St.	Denver
Courtney, Helen M.	Box 161	Grand Lake
Currie, Ethel F.	427 Remington	Ft. Collins
Derwae, Lillian E.	3757 Pecos St.	Denver

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Jones, Mrs. Thelma C.	Box 488	Fort Collins
Kramer, Margaret L.	Corwin Hospital	Pueblo
Moon, Mrs. Henrietta M.	950 Marion St.	Denver
Murdock, G. Eugenia	2460 W. 32nd Ave.	Denver
Murray, Virginia**	1766 Race St.	Denver
Sr. M. Adele Simons	St. Anthony Hospital	Denver
Sr. Alphonse Ligouri	St. Mary's Hospital	Pueblo
Sr. M. Benedicta Frisz	St. Anthony Hospital	Denver
Sr. M. Luitgard	St. Thomas More Hospital	Canon City
Sr. Rachel Rausch	St. Joseph's Hospital	Denver
Schierer, Eleanor C.	3419 Pennsylvania St.	Denver
Sidel, Ollie	Mercy Hospital	Denver
Stevens, Mrs. Ann M.*	1663 Gilpin St.	Denver
Sullivan, Margaret L.	1630 Fillmore St.	Denver
Tubbs, Helen M.	2906 E. 17th St.	Denver

CONNECTICUT

Allcock, Alice	Charlotte Hungerford Hosp.	Torrington
Anderson, Marion L.	780 Howard St.	New Haven
Bander, Edna M.	120 Dwight St.	New Haven
Biondi, Lola	Bristol Hospital	Bristol
Blake, Marguerite E.	Waterbury Hospital	Waterbury
Blaney, May V.	St. Francis Hospital	Hartford
Chambers, Cecelia	New Haven Hospital	New Haven
Davidson, Mary C.	Greenwich Hospital	Greenwich
Davis, Elizabeth F.	St. Vincent's Hospital	Bridgeport
Dunbar, Mrs. Elizabeth R.	780 Howard Ave.	New Haven
Dunst, Elizabeth	St. Vincent's Hospital	Bridgeport
Earley, Ruth A.	780 Howard Ave.	New Haven
Golding, Mildred I.	Lawrence & Mem'l Ass't Hospitals	New London
Hanna, Mrs. Elaine R.	860 Howard Ave.	New Haven
Hunt, Alice M.	New Haven Hospital	New Haven
Jeter, Mrs. Margaret	29 Carpenter Hts.	Meriden
Kloss, Mrs. Alice N.	Newfield Road	Torrington
Kloss, Margaret M.	63 Pythian Ave.	Torrington
Lorentzou, Ebba	Waterbury Hospital	Waterbury
McLaughlan, Eleanor	Bridgeport Hospital	Bridgeport
Masson, Mrs. Julia F.	Charlotte Hungerford Hosp.	Torrington
Hoff-Nast, Mrs. Karoline	122 West St.	Manchester
O'Donnell, Ann R.	370 Collins St.	Hartford
O'Donnell, Margaret M.	St. Mary's Hospital	Waterbury
Prouty, Ethel L.	350 Ocean Ave.	New London
Rothacker, Emily M.	780 Howard Ave.	New Haven
Saks, Marion J.	337 Stanley St.	New Britain
Sopko, Theresa	Mt. Sinai Hospital	Hartford
Sprague, Mrs. Catherine M.	23 Valley Road	Cos Cob
Stover, Ethel	Bridgeport Hospital	Bridgeport
Tamm, Helene	40 Seminary St.	New Canaan
Welker, Marianne H.	780 Howard Ave.	New Haven
Welling, Eula E.	Waterbury Hospital	Waterbury
Witmyre, Mrs. Mildred W.	Bristol Hospital	Bristol

DELAWARE

Calvin, Ella M.	123 Ogle Ave.	Wilmington
Fleming, Mrs. Carmelia J.	1400 Washington St.	Wilmington
McCool, M. Vivian	Wilmington Gen'l Hospital	Wilmington
Westbrook, Edith	Delaware Hospital	Wilmington

---

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DISTRICT OF COLUMBIA

Beck, Osa	Providence Hospital	Washington
Bruchnechter, Marg. R.	Walter Reed Gen'l Hospital	Washington
Eveleth, Grayce S.	Walter Reed Gen'l Hospital	Washington
Smiser, Mrs. Elizabeth S.	2737 Devonshire Pl.	Washington

FLORIDA

Baker, Sara F.	818 E. Monroe St.	Pensacola
Barrett, Emily H.	908 S. W. 26th St.	Fort Lauderdale
Bell, Fannie R.***	1104 E. DeSota St.	Pensacola
Bradbury, Mrs. Lenella J.	Orange General Hospital	Orlando
Brown, Mrs. Mary C.	1501 N. W. Second St.	Miami
Caldwell, Bessie	Florida Sanitarium	Orlando
Caldwell, Mrs. Thelma	1921 Bay Road	Miami Beach
Compton, Mrs. Evon E.	1227 Greenwood Ave.	Orlando
Costello, Josephine Zita	General Delivery	Miami Beach
Craig, Mary Louise	Jackson Memorial Hospital	Miami
Davis, Nellie G.	1426—9th St. North	St. Petersburg
Dunning, Mrs. Ruth	Ft. Pierce Memorial Hospital	Fort Pierce
Edwards, Mrs. Ruth H.***		Zellwood
Ellis, Mrs. Ida Tedford	1210 Kuhl Ave.	Orlando
Grant, Iva S.	108 E. Central Ave.	Orlando
Green, Mrs. Almida C.	Jackson Memorial Hospital	Miami
Kendall, Mildred M.	608 Delaney Park Drive	Orlando
Kenney, Florence	St. Francis Hospital	Miami Beach
Kiefer, Anna Marie***	2101 Blvd., Aragon Hotel	Jacksonville
Kossack, Michalina A.	Dade County Hospital	Miami
Lemke, Pearl F.	Watson Clinic	Lakeland
Muren, Mrs. Frances R.	937—10th St.. N.	St. Petersburg
Noel, Mrs. Nelle McIntosh	2110—31st St., S.	St. Petersburg
Phillipoff, Mrs. Mary F.**	Morton Plant Hospital	Clearwater
Platt, Lt. Jewel, A.N.C.	Station Hospital, Morrison Field Air Base	West Palm Beach
Regan, Jean C.	2603 St. John's Ave.	Jacksonville
Schier, Alpha E.*	Halifax District Hospital	Daytona Beach
Smith, Lucille H.	Duval County Hospital	Jacksonville
Taylor, Mrs. Marjorie W.	Box 790	Plant City
Tharp, L. May	Mound Park Hospital	St. Petersburg
Vance, Ina B.	Alachua County Hospital	Gainesville
Vanderwood, Lena	Tallahassee Air Base	Tallahassee
Watford, Leslie	Jackson Memorial Hospital	Miami
Weatherall, Dorothy	Naval Air Station	Jacksonville
Wilbanks, Mary C.	Pensacola Hospital	Pensacola

GEORGIA

Belcher, Lexie	Emory University Hospital	Emory University
Benteen, Anita C.	926 Lullwater Rd.	Atlanta
Bresnahan, Mary C.	Central of Ga. Ry. Hospital	Savannah
Burdette, Agnes	Phoebe Putney Mem'l Hospital	Albany
Burns, Mrs. Estelle	Route 2	Decatur
Caraway, Billie B.	Georgia Baptist Hospital	Atlanta
Carnes, Rhea	Archbold Memorial Hospital	Thomasville
Carter, Hazel	Grady Hospital	Atlanta
Dasher, Annie L.	202 E. Liberty St.	Savannah
Davis, Mrs. Effie	Patterson's Hospital	Cuthbert
Davis, Mildred	144 Ponce de Leon Ave.	Atlanta
Elliott, Cornelia	Grady Hospital	Atlanta
Ellis, Blanche E.	Nurses' Quarters	Fort Benning
Gaissert, Julia T.	City Hospital	Columbus
Grubb, Mary A.	Douglas Hospital	Douglas
Guinn, Alice C.	Georgia Baptist Hospital	Atlanta

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Guinn, Martha Scott	Emory University Hospital	Emory University
Heitmeyer, Mrs. Ursula T.	72 Delmont Drive	Atlanta
Helig, H. Rose	Grady Hospital	Atlanta
Hewes, Caroline K.	Macon Hospital	Macon
Hohenschutz, Caroline E.	St. Joseph's Infirmary	Atlanta
Hollum, Annie L.	Columbus City Hospital	Columbus
Ivey, Mrs. Norma	761 Virginia Ave., N.E.	Atlanta
Jones, E. Mae	Rawlings Sanitarium	Sandersville
King, Mrs. Mary	220 W. Benson St.	Decatur
Knight, Ethel	Route 3	Macon
Lewis, Mary F.	Emory University Hospital	Emory University
McDonald, Mrs. Rosalie C.	Emory University Hospital	Emory University
McLendon, Melba	Middle Georgia Hospital	Macon
McGinty, Mrs. Jean G.*	Elbert County Hospital	Elberton
Mahoney, Clara C. **	Crawford W. Long Mem'l Hosp.	Atlanta
Nutt, Annie L.	Strickland Memorial Hospital	Griffin
Plummer, Thora L.	Station Hospital	Fort McPherson
Rapp, Mrs. Grace M.***	574 Collier Rd. N.W.	Atlanta
Ridley, Mrs. Rubye	1055 Rosewood Dr. N.E.	Atlanta
Rowzee, Theo L.	478 Peachtree St.	Atlanta
Sr. Mary Leandra	St. Mary's Hospital	Athens
Sr. Mary Wilfreda	St. Mary's Hospital	Athens
Saye, Mrs. Clara J.	Crawford W. Long Mem'l Hosp.	Atalanta
Sparks, Mrs. Dolores A.	1206 Peachtree St.	Atalanta
Stott, Mabel G.	Lawson General Hospital	Atalanta
Vickers, Leola	Grady Hospital	Atalanta
Warman, Halo H.	Emory University Hospital	Emory University
Weaver, Mrs. Estelle F.	Georgia Baptist Hospital	Atlanta
Wells, Louise	Archbold Memorial Hospital	Thomasville
Wertz, E. Ruth	Emory University Hospital	Emory University
Williams, Lucile	Central of Georgia Ry. Hosp.	Savannah

IDAHO

Butler, Selma J.	Box 129	Cottonwood
Henggeler, Martha M.	1002 N. 9th St.	Boise
Mauro, Mrs. Helen R.***		Nezperce
Meyer, Marie	415 Jefferson St.	Boise
Nelson, Leona K.	General Hospital	Twin Falls
Sister M. Felicitas	St. Valentine's Hospital	Wendell
Sister M. Helen	Our Lady of Consolation Hosp.	Cottonwood
Sister M. Jeanne Mays	Sacred Heart Hospital	Idaho Falls
Sister Joseph Arthur	Providence Hospital	Wallace
Youngren, Mrs. Victoria W.	L. D. S. Hospital	Idaho Falls

ILLINOIS

Ahlson, M. Elynor	2875 W. 19th St.	Chicago
Allen, Lulu C.	Box 186	Freeport
Anderson Ethel	Delnor Hospital	St. Charles
Armstrong, Alvena M.	Columbus Hospital	Chicago
Arns, Irene	1635 Hollywood	Chicago
Astling, Mrs. Minnie	321 Grant St.	Sycamore
Aultz, Margaret A.	1431 N. Claremont	Chicago
Baines, Julia T.	1422 Sedgwick	Chicago
Baker, Mrs. Marjorie**	2026 N. Burling St.	Chicago
Baumgartner, Lottie M.	West Suburban Hospital	Oak Park
Behrens, Mrs. Angelene M.	6511 N. Sacramento	Chicago
Berg, Anna B.	Community Hospital	Geneva
Berghoff, Augusta	Alton Clinic	Alton
Bisdorf, Mrs. Marie Elliot	St. Joseph Hospital	Chicago
Brechtel, Ida		Lena
Breitenfeld, Mrs. Mary F.	4837 Addison St.	Chicago

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Burke, Ursula M.	Evanston Hospital	Evanston
Cameron, Mrs. Mae B.	Ravenswood Hospital	Chicago
Carkhuff, Alice M.	416 E. 3rd St.	Dixon
Carrier, Mrs. Emma M.	37 W. 14th Place	Chicago Heights
Clardy, Grace I.	Garfield Park Hospital	Chicago
Clough, Mrs. Corrinne	Lutheran Deaconess Hospital	Chicago
Coupland, Margaret	Methodist Hospital	Peoria
Crane, Mrs. Katherine***	1912 E. Spruce St.	Springfield
Czyzycki, Catherine C.	Woodlawn Hospital	Chicago
Daniels, Clorecia	732 Belden Ave.	Chicago
Day, Dorothy L.	Proctor Hospital	Peoria
Dickison, Hazel M.	4058 Melrose St.	Chicago
Dickson, Mrs. Josephine	St. Joseph Hospital	Alton
Diediker, Matilda	716 S. St. Louis, Garfield Park Sta.	Chicago
Diesel, Mrs. Agnes L.***	4506 Magnolia Ave.	Chicago
Dorum, Thelma	St. Joseph Hospital	Chicago
Downham, Sarah J.	Mather Cabrini Hospital	Chicago
Duarte, Mrs. Antoinette		Bellevue
Duray, Mary	West Suburban Hospital	Oak Park
Effinger, Mrs. Marguerite	Lake County Hospital	Waukegan
Egleston, Ada M.	American Hospital	Chicago
Elbert, Bernice	St. Mary's Hospital	Kankakee
Elyea, Marjorie L.	Silver Cross Hospital	Joliet
Estry, Mrs. Mabel M.	St. Joseph Mercy Hospital	Aurora
Ewing, Julia E.	1712½ Marshall Ave.	Mattoon
Ford, Lauda S.	Passavant Hospital	Chicago
Fossum, Alma	5421 S. Morgan St.	Chicago
Ganzbuhl, Margaret	St. Anthony Hospital	Chicago
Garrity, Mary	7042 Rockwell	Chicago
Girkin, Nettie R.	Michael Reese Hospital	Chicago
Goodman, Mrs. Nellie C.	Decatur Macon Co. Hospital	Decatur
Graf, Irma G.	7438 Adams Street	Forest Park
Graham, Kathleen T.	Holy Cross Hospital	Chicago
Gram, Mrs. Jennie A.	7235 Rhodes Ave.	Chicago
Grant, Mrs. H. Jeanne	515 Davis St.	Evanston
Green, Jean	Edgewater Hospital	Chicago
Haigwood, Hattie B.	U. S. Marine Hospital	Chicago
Hanner, Bonnie B.	W. Suburban Hospital	Oak Park
Hansen, Elizabeth T.	Henrotin Hospital	Chicago
Hanson, Esther B.	St. Mary's Hospital	Galesburg
Hard, Mabel D.	Jackson Park Hospital	Chicago
Harris, Bernadette A.	Loretto Hospital	Chicago
Harrison, Alice E.	612 N. 12th St.	Melrose Park
Hazlett, Madonna	Mt. Sinai Hospital	Chicago
Hellickson, Helga C.	Ravenswood Hospital	Chicago
Henry, Mrs. Pauline E.***	227 Clinton St.	Oak Park
Hickey, Mary C.	South Shore Hospital	Chicago
Hickman, Drusilla I.	Belmont Hospital	Chicago
Hill, Harriet L.	195 E. Chestnut St.	Chicago
Hill, Helen Lois	Sherman Haspital	Elgin
Hobein, Mrs. Margaret S.	Elmhurst Community Hospital	Elmhurst
Hoffman, Gladys M.	Englewood Hospital	Chicago
Holmes, Edith H.	Norwegian-American Hospital	Chicago
Holwell, Mary M.	6915 S. Winchester Ave.	Chicago
Hoving, Anna S.	Roseland Community Hosp.	Chicago
Hunt, Valeda V.	St. Joseph Hospital	Chicago
Jensik, Mrs. Florence M.	512 Fisher Ave.	Rockford
Johnson, Mrs. Anna P.***	1703 W. 103rd St.	Beverly Hills
Johnson, Sagrid E.	St. Mary's Hospital	Decatur

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Kaiser, Mrs. Elizabeth	1850 W. Jackson Blvd.	Chicago
Kasten, Mary C.	St. Anne's Hospital	Chicago
Kelley, Winifred	St. Luke's Hospital	Chicago
Kelly, Margaret W.	2548 Lakeview Ave.	Chicago
Kiefer, Helen V.	St. Joseph Hospital	Alton
Kraus, Paula	Lewis Memorial Hospital	Chicago
Kuhn, Pauline	Little Co. of Mary Hospital	Evergreen Park
Lazarski, Elizabeth	612 N. 12th Ave.	Melrose Park
Lebkuecher, Ethel M.	Decatur & Macon Co. Hospital	Decatur
Lee, Agnes J.	Norwegian-American Hosp.	Chicago
Leidel, Leeta	Wabash Hospital	Decatur
Lemmons, Geneva	703 N. Kedzie Ave.	Chicago
Lenihan, Julia	Loretto Hospital	Chicago
Lewis, Hattie M.	1142 W. Lawrence Ave.	Springfield
Ludwig, Mrs. Ruth A.	507 E. Green St.	Urbana
Lundahl, Mrs. Myrtle R.	46 E. 110th Place	Chicago
McCall, Catherine	645 S. Central Ave.	Chicago
McCuen, Olive A.	In Army, with Northwestern Unit	
McGinley, Edith	Ravenswood Hospital	Chicago
McGraw, Mary R.	925 E. Prairie	Decatur
Medsen, Mrs. Dorothy M.***	7312 Dante Ave.	Chicago
Mahoney, Betty	St. Francis Hospital	Evanston
Maisnik, Shirley	St. Luke's Hospital	Chicago
Marsh, Margaret	Sherman Hospital	Elgin
Martin, Alice M.	915 Wilson Ave.	Chicago
Milkereit, Mrs. Jessie M.	1101 State St.	Pekin
Miller, Hazel	1667 N. Richmond St.	Chicago
Miller, Ola	2816 Ellis Ave.	Chicago
Modaff, Louise	Station Hospital	Fort Sheridan
Myers, Hilda	Edgewater Hospital	Chicago
Myres, Wanda M.	Southtown Hospital	Chicago
Myreseth, Gudrun	Ingalls Mem'l Hospital	Harvey
Neuroth, Bertha	St. Anne's Hospital	Chicago
Newman, Blanche	Illinois Central Hospital	Chicago
Niccoli, Marie	St. Anne's Hospital	Chicago
Nichol, Mabel A.	525 W. Arlington Place	Chicago
Nichols, Lucile B.	536 Webster Ave.	Chicago
Nitzpan, Maria	Henroten Hospital	Chicago
Nordwall, Frieda M.	Swedish Covenant Hospital	Chicago
Norred, Annice E.	Elmhurst Community Hosp.	Elmhurst
O'Day, Exire	Ravenswood Hospital	Chicago
O'Leary, Helen E.	Passavant Hospital	Chicago
Olson, Anna M.	Grant Hospital	Chicago
Olson, Edwina H.	St. Margaret's Hospital	Spring Valley
Patterson, Mrs. Gertrude A.	St. Francis Hospital	Blue Island
Petersen, Margaret	Englewood Hospital	Chicago
Pfauser, Christine H.	West Suburban Hospital	Oak Park
Pippereit, Martha A.	Chicago Memorial Hospital	Chicago
Poole, Susannah	Alton Memorial Hospital	Alton
Powley, Mary M.	6038 S. Albany Ave.	Chicago
Priester, Ann	West Suburban Hospital	Oak Park
Proudfit, Mrs. Harriet O	Woodstock Hospital	Woodstock
Psuik, Anne	9437 S. Langley Ave.	Chicago
Puth, Mary G.	St. Francis Hospital	Evanston
Redlak, Marie L.	Ingalls Memorial Hospital	Harvey
Reimer, Irma A.	536 Webster Ave.	Chicago
Render, Gertrude	Alton Memorial Hospital	Chicago
Riegel, Mrs. Bertha	302 Union St.	Joliet
Riley, Alice M.	Augustana Hospital	Chicago

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Rinella, Edris P.	Illinois Central Hospital	Chicago
Robarge, Mrs. Hilma	Lake County Sanatorium	Waukegan
Robertson, Blanche A.	Holden Hospital	Carbondale
Ronn, Anna M.	Passavant Hospital	Chicago
Roth, Jean	Mercy Hospital	Chicago
Ruggles, Mrs. Esther	P. O. Box 312	Evergreen Park
Sr. Adolpha Ray	St. Anthony Hospital	Effingham
Sr. M. Ambrose Bochenek	St. Mary of Nazareth Hosp.	Chicago
Sr. Ambrose Tamosaitis	2700 W. 69th St.	Chicago
Sr. Andrea Weisgerber	St. Clara's Hospital	Lincoln
Sr. Angilberta Schellenberger	St. Theresa Hospital	Waukegan
Sr. Antonella Rauch	St. Joseph Hospital	Joliet
Sr. Bernadetta Frech	St. Joseph Hospital	Joliet
Sr. Borromea Suplicka	St. Francis Hospital	Peoria
Sr. M. Carmella Cahill	St. Francis Hospital	Macomb
Sr. M. Caroline Zirkel	St. Charles Hospital	Aurora
Sr. M. Cleta Mehn	St. Elizabeth Hospital	Granite City
Sr. M. Conradine Berwarth	St. Anthony Hospital	Chicago
Sr. Corene Adams	St. Vincent's Hospital	Taylorville
Sr. Cyprian Garczynska	1120 N. Leavitt	Chicago
Sr. Dobromilla Janiszczak	1120 N. Leavitt	Chicago
Sr. M. Dorothea	St. Anne's Hospital	Chicago
Sr. M. Eucheria O'Bara	Mercy Hospital	Chicago
Sr. Euphrasia Glandorf	St. Mary's Hospital	Streator
Sr. M. Gordiana Schiffer	St. Mary's Hospital	LaSalle
Sr. Henrita Schweda	St. Elizabeth Hospital	Belleville
Sr. Heribert Nowak	St. Francis Hospital	Freeport
Sr. Hortense Makstutis	St. Joseph Hospital	Joliet
Sister Hyacinth	St. Vincent's Hospital	Taylorville
Sr. Irmengard Casselius	St. Joseph Hospital	Joliet
Sr. James Calkin	St. Joseph Hospital	Highland
Sr. Jean Sudkamp	St. Elizabeth's Hospital	Belleville
Sr. Johanita Toenniss	St. Vincent Hospital	Taylorville
Sr. Johanelle Woityna	St. John's Hospital	Springfield
Sr. M. Josephine	St. Mary's Hospital	Kankakee
Sr. Jovita Schumann	St. Joseph's Hospital	Joliet
Sr. Kathleen Petrunich	St. John's Hospital	Springfield
Sr. M. Kunigunda Flentz	St. Mary's Hospital	LaSalle
Sr. M. Leo Lang	Little Co. of Mary Hospital	Evergreen Park
Sr. M. Lilose	St. Mary's Hospital	Centralia
Sr. Liliosa Meyer	St. Mary's Hospital	Decatur
Sr. M. Lillian D'Autremont	Mercy Hospital	Chicago
Sr. M. Louise Odenthal	St. Joseph Hospital	Joliet
Sr. M. Loyola Panter	St. Francis Hospital	Freeport
Mother Magdalena Wiedlocher***	St. Francis Convent	Springfield
Sr. Marianna Casselius	St. Charles Hospital	Aurora
Sr. Materna Boronowski	St. Francis Hospital	Litchfield
Sr. M. Mildred Sauer	St. Elizabeth Hospital	Danville
Sr. Odilard Sylvester	Lewis Memorial Hospital	Chicago
Sr. M. Prosperia Holtgrave	1431 N. Claremont Ave.	Chicago
Sr. M. Raymonda Hoefler	St. Anthony Hospital	Rockford
Sr. M. Reginella Grodecka	St. Mary of Nazazeth Hosp.	Chicago
Sr. Regula	St. John's Hospital	Springfield
Sr. Rudolpha	St. John's Hospital	Springfield
Sr. Saint Bernard	St. Bernard's Hospital	Chicago
Sr. Saint Margaret Mary	St. Bernard's Hospital	Chicago
Sr. Salesia Myering	St. Joseph Hospital	Highland
Sr. Seraphia Vogl	St. John's Hospital	Springfield

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Sr. M. Theresa Ettelbrick	St. Anthony Hospital	Chicago
Sr. M. Theresita Rudolph	St. Elizabeth's Hospital	Chicago
Sr. M. Viola Kieger	St. Joseph Hospital	Elgin
Sr. Virginia Clare Regan	St. Joseph Hospital	Elgin
Sachs, Louise K.	1542 West 80th St.	Chicago
Scherf, Emily Ray	1811 S. 5th St.	Springfield
Schobert, Helen R.	3245 S. Oak Park Ave.	Berwyn
Schoreweiber, Blanche M.	1049 N. LaVergne Ave.	Chicago
Schram, Mrs. Opal E.	Washington Blvd. Hospital	Chicago
Schumacher, Mildred A.	Springfield Hospital	Springfield
Schwager, Mrs. Mary	518 N. 3rd Ave.	Maywood
Sed, Julia	303 E. Superior St.	Chicago
Shepard, Alice R.	Children's Memorial Hospital	Chicago
Smith, Helen M.	Proctor Hospital	Peoria
Sousa, Mrs. Anna M.	Illinois Masonic Hospital	Chicago
Speers, Helen M.	444 St. James Place	Chicago
Stankiewicz, Helen M.	Illinois Eye & Ear Infirmary	Chicago
Staples, Mrs. Marion	7835 S. Halsted St.	Chicago
Steele, Harriette	Columbus Hospital	Chicago
Stenstrom, Naomi S.	South Shore Hospital	Chicago
Stephens, Mrs. Edna M.	351 St. Charles St.	Elgin
Stitzer, Dorothy E.	699 E. Deerpath Rd.	Lake Forest
Stohl, Violet M.	Swedish Covenant Hospital	Chicago
Stoltz, Frieda L.	St. Luke's Hospital	Chicago
Strauch, Elsie H.	Methodist Hospital	Peoria
Suttle, Ethel M.	St. Francis Hospital	Macomb
Taylor, Hazel	Henrotin Hospital	Chicago
Terry, Anna M.	West Suburban Hospital	Oak Park
Thom, Audrey R.	Copley Hospital	Aurora
Tricka, Mrs. Louise B.	South Chicago Hospital	Chicago
Turner, Cora B.	4523 N. Hamilton	Chicago
Vincent, Nelle G.	Evanston Hospital	Evanston
Wagner, Erma F.	5421 S. Morgan	Chicago
Wagner, Mrs. Beulah D.	St. Anne's Hospital	Chicago
Walton, Mrs. Glenna L.	St. Francis Hospital	Peoria
Watts, Edith M.	Englewood Hospital	Chicago
Webster, Bonnie	Evanston Hospital	Evanston
West, Norma R.	West Suburban Hospital	Oak Park
Whitford, Mrs. Mae L.	Collins Clinic	Peoria
Whitney, Madge***	2561 Cullom Ave.	Chicago
Willenborg, Anna*	Mercy Hospital	Chicago
Willenborg, Myrna	St. Luke's Hospital	Chicago
Willey, Mary J.	2666 E. 77th St.	Chicago
Wilson, Ruth	416 Surf St.	Chicago
Wisner, Claire E.	St. Francis Hospital	Evanston
Withrow, Emalie	St. Anne's Hospital	Chicago
Woolsey, Mrs. Ora E.	200 Washington Ave.	Beardstown
Worthington, Joan M.	West Frankfort Hospital	West Frankfort
Wright, Ruth	University Hospital	Chicago
Zech, Elizabeth D.	Evanston Hospital	Evanston
Zenz, Bernadine M.	Mercy Hospital	Chicago
Zwick, Mary A.	Evanston Hospital	Evanston

INDIANA

Anderson, Margaret R.	Monroe City Road	Vincennes
Axel, Wilma Jo	540 Tyler Street	Gary
Benn, M. Pauline	St. Joseph's Hospital	Ft. Wayne
Church, Mrs. Margaret P.	1016 Garden St.	Ft. Wayne
Deane, Thelma A.	130 W. Miami Ave.	Logansport

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Divan, Virginia	113 South 12th St.	Clinton
Efinger, Irene H.	319 W. Louisiana St.	Evansville
Hane, Mrs. Ruth H.*	709 Kinnaird Ave.	Ft. Wayne
Holt, Nina Mae	Ball Memorial Hospital	Muncie
Lange, Agnes M.**	326 Arcadia Court	Ft. Wayne
Lindsey, Mrs. Grace V.	Ball Memorial Hospital	Muncie
Myers, Mrs. Fern Like	R. R. No. 2	Wheatland
Pressler, Mrs. Mildred Q.	Marion General Hospital	Marion
Reitz, Helen M.	319 W. Louisiana St.	Evansville
Stack, Helen A.	Station Hospital	Ft. Benj. Harrison
Vonderau, Anna	2902 S. Fairfield	Ft. Wayne
Warnock, Inez	110 N. Cherry St.	Muncie

IOWA

Abraham, Sylvia C.	Mercy Hospital	Council Bluffs
Barrett, Ella E.	St. Joseph's Mercy Hospital	Mason City
Brabec, Mrs. Lucy M.**	Mercy Hospital	Ft. Dodge
Brandt, Alma M.	Deaconess Hospital	Marshalltown
Conley, Marjorie J.	St. Joseph Mercy Hospital	Sioux City
Craddock, Mary Kathryn	Mercy Hospital	Des Moines
Culp, Mary Arnold	Mercy Hospital	Des Moines
Dann, J. Irene	2906 Douglas St.	Sioux City
Ewer, Bertha A. L.	401 Security Bldg.	Sioux City
Felber, Marie	University Hospital	Iowa City
Grigsby, Lillian	Hamilton County Hospital	Webster City
Holmden, Irma J.	302 Smith Apt.	Sioux City
Klein, Grace	Burlington Hospital	Burlington
Krogstad, Lorna E.	Park Hospital	Mason City
McGuire, Mary R.	Jennie Edmundson Hospital	Council Bluffs
Meyer, Marian L.	St. Joseph Mercy Hospital	Mason City
Parrish, Mrs. Mae Aileen	St. Joseph's Mercy Hosp.	Dubuque
Phillips, M. Louise	1200 Main St.	Dubuque
Roberts, Phyllis A.	Lutheran Hospital	Ft. Dodge
Robinson, Lulu V.	1319 N. Wapello	Ottumwa
Robson, Marie K.***	308 Toy Nat'l Bank Bldg.	Sioux City
Sr. M. Andriella Mateju	St. Anthony's Hospital	Carroll
Sr. M. Francella Dunton	Mercy Hospital	Burlington
Sr. Mary Aurelia	St. Francis Hospital	Burlington
Sr. M. Hilda Rieder	St. Joseph Hospital	Keokuk
Sr. Margaret M. Kane	St. Joseph's Mercy Hospital	Sioux City
Sr. M. Pauline Hammes	Mercy Hospital	Des Moines
Sr. M. Philomena	St. Vincent's Hospital	Sioux City
Sr. M. Natalie Senecal	St. Joseph's Mercy Hospital	Centerville
Schwarting, Louise E.*	Lutheran Hospital	Ft. Dodge
Shanley, Gertrude Marie	2016 Iowa St.	Davenport
Short, Callie Esther	Jennie Edmundson Hospital	Council Bluffs
Smith, Ethel	517 High Ave., East	Oskaloosa
Sulis, Gladys H.	Ellsworth Municipal Hospital	Iowa Falls
Sven, Myrtle E.	Lutheran Hospital	Ft. Dodge
Thompson, Helen M.	212 Tucker Bldg.	Clinton

KANSAS

Baker, Viola H.*	Wesley Hospital	Wichita
Collins, Deletha J.	327 Pope Ave.	Leavenworth
Hammann, Zella	McPherson County Hospital	McPherson
Lovejoy, Mary	Christ's Hospital	Topeka
Mikkola, Senta	Wesley Hospital	Wichita
Miller, Ella	327 Pope Ave.	Fort Leavenworth
Murry, Cora	Murray Memorial Hospital	Dodge City
O'Neill, Mrs. Elizabeth	P. O. Box 574	Dodge City

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Paul, Mrs. Ethel**	Wesley Hospital	Wichita
Risser, Ella H.	Bethel Deaconess Hospital	Marysville
Thompson, Velma V.	Randall Hospital	Marysville
West, Wanda G.	111 West 10th St.	Concordia
Wilson, Mrs. Blanche		Kingman

KENTUCKY

Bloom, Estelle	822 Heyburn Bldg.	Louisville
Bowyer, Mrs. E. W.***	c/o Mrs. W. S. Helm Upper River Road	Louisville
Cadwallader, Marian F.***	Frontier Nursing Service	Hyden, Leslie Co.
Coughlin, Johanna M.	c/o C. J. Moore	Mayslick
Duncan, Mrs. Davida G.***		Columbia
Harover, Mrs. Mae W.	480 Riverview Terrace	Maysville
Haverkamp, Etta***	217 Van Voast Ave.	Bellevue
Ludovico, Mary M.	Station Hospital	Fort Knox
Ryan, Ellen		Jenkins
Salt, Susan R.***	641 Park Ave.	Newport
Sirkle, Mrs. Lula M.		Meeksbury
Smith, Tommie	1110 Francis Bldg.	Louisville
Sweeney, Rheba	Norton Infirmary	Louisville
Thurman, Elizabeth	Good Samaritan Hospital	Lexington

LOUISIANA

Bauer, Eva Ann	400 St. John St.	Monroe
Campeau, Beulah	3825 Louisiana Ave. Pkwy.	New Orleans
Coco, Mrs. Evelyn H.	2029 Benefit St.	New Orleans
Dodd, Mrs. Viola R.**	Hotel Dieu	New Orleans
Dudley, Mrs. Annie R.		Jackson
Duncan, Mrs. Dorothy S.	Highland Sanitarium	Shreveport
Epsky, Irene	Port Sulphur Hospital	Port Sulphur
Foley, Mrs. Marie B.	3554 Lillian St.	Shreveport
Forsman, Rosalie M.	St. Francis Sanitarium	Monroe
Garcia, Marcia E.	1541 Tulane Ave.	New Orleans
Gebs, Lillian M.	3511 Iberville St.	New Orleans
Graves, Mrs. Katie R.	Box 1941	Alexandria
Griffin, Mrs. Philomena	Box 260, Rt. 1	Alexandria
Grillet, Agnes	8127 Spruce St.	New Orleans
Grillet, Stella	8127 Spruce St.	New Orleans
Hanson, Mrs. Ethel C.	608 Cypress St.	West Monroe
Illg, Mrs. Lena P.	327 South Alexandria	New Orleans
Ingersoll, Mrs. Mary E.	336 N. St. Patrick	New Orleans
Kirk, Mrs. Selene O.	Hotel Dieu	New Orleans
Kling, O. Rowene*	Ochsner Clinic	New Orleans
Koenig, Mary E.	Nurses' Home, Charity Hosp.	New Orleans
Lenz, Genevieve M.	Gen'l Hospital, Unit 30, Camp Livingston	Alexandria
Loe, Mrs. A.	Mansfield Sanitarium	Mansfield
Lewis, Shirley E.	Nurses' Home, Charity Hosp.	New Orleans
Martinez, Mrs. Guillerma E.	225 Orion Blvd.	New Orleans
McMahon, Ellen M.	2220 Constance St.	New Orleans
Miller, Mary M.	Ellender Hospital	Houma
Nelson, Jessie V.	Baptist Hospital	Alexandria
Nock, Anne Elizabeth	1712 Valmont St.	New Orleans
O'Donnell, Mrs. Lillian	Haynesville Hospital	Haynesville
Owen, Mrs. Sam	Charity Hospital	Shreveport
Price, Margaret A.	3518 Piedmont St.	New Orleans
Rausch, Zadie R.	7 Fontainebleau Dr.	New Orleans
Rexer, Kathryn C.	Culpepper-White Clinic	New Orleans
Robichaux, Mrs. Jeanne	619 Chartres St.	New Orleans

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Sister Aubierge Younge	St. Francis Sanitarium	Monroe
Sawyer, Ola E.	Minden Sanitarium	Minden
Scott, Mrs. Jane C.	508 St. Peter's St.	New Orleans
Sim, Mary	11 Fontainebleau Dr.	New Orleans
Simoneaux, Mrs. Agnes	4417 Cleveland St.	New Orleans
Slater, Mrs. LaRene R.	731 Royal St.	New Orleans
Spear, Berniece	Nurses' Home, Charity Hosp.	New Orleans
Sterbenz, Loretta M.	North Louisiana Sanitarium	New Orleans
Sullivan, Rosalie G.	Hotel Dieu	New Orleans
Tinney, Mrs. Delphine	3508 Chestnut St.	New Orleans
Tomeny, Betty	4921 Carondelet St.	New Orleans
Trimble, Ethel	Highland Sanitarium	New Orleans
Wever, Mertice M.	1610 Seventh St.	New Orleans
Womack, Mrs. John W.	1448 Woodrow St.	New Orleans
Word, Mattie T.	1410 St. Andrew St.	New Orleans
Yancey, Mrs. Lydia R.	Ellender Hospital	Houma
Ziegler, Mrs. Sara P.	514 Arlington Dr.	New Orleans
MAINE		
Coffin, Mrs. Jeanette L.		Southwest Harbor
Craig, Ruth H.		Hampden Highl'ds
Curran, Mrs. Rosemary R.	Maine Gen'l Hospital	Portland
Decker, Ann MacKay	Maine Gen'l Hospital	Portland
Eagles, Beatrice C.	Eastern Maine Gen'l Hosp.	Bangor
Erdle, Mrs. Mary T.***	1030 High St.	Bath
Greene, Gretchen V.	Eastern Maine Gen'l Hosp.	Bangor
Hathaway, Belle	Box 183	Quoddy Village
Jacobsen, Mrs. Lona G.	Mt. Desert Island Hospital	Bar Harbor
Moore, Greta	Eastern Maine Gen'l Hosp.	Bangor
Sr. M. Clotilde Hawkes	Queen's Hospital	Portland
Sutliff, Dorothy F.	Maine General Hospital	Portland
Whitney, Velma J.	Franklin Co. Mem'l Hospital	Farmington
MARYLAND		
Argus, Clara	Johns Hopkins Hospital	Baltimore
Berger, Olive L.	Johns Hopkins Hospital	Baltimore
Black, Mrs. Constance***	33 Warrenton Road	Baltimore
Blades, Caroline E.	Peninsula Gen'l Hospital	Salisbury
Carl, Dorothy M.***	4309 Chatham Road	Baltimore
Darlington, Thelma C.	So. Baltimore Gen'l Hospital	Baltimore
De Lone, Florence A.	Emergency Hospital	Annapolis
Derr, Thelda E.	5000 Cordelia Ave.	Baltimore
Dolan, Helen M.	Johns Hopkins Hospital	Baltimore
Elliott, Ruth S.	Univ. of Maryland	Baltimore
Fox, Carrie B.	2702 East-West Highway	Chevy Chase
Furlong, Rose L.	9 Linalore Ave.	Baltimore
George, Mrs. Mildred M.	125 S. Liberty	Cumberland
Hammond, Mrs. Alyce P.	P. O. Box 166	Centreville
Kane, Ethel M.	Mercy Hospital	Baltimore
Kavanagh, Mary T.	St. Joseph's Hospital	Baltimore
McCafferty, Margaret A.	Bon Secours Hospital	Baltimore
O'Brien, Mary J.	Univ. of Maryland Hospital	Baltimore
Owings, Frances V. N.	Johns Hopkins Hospital	Baltimore
Smith, Grace L.	515 N. Wolfe St.	Baltimore
Turtscher, Iva A.	Johns Hopkins Hospital	Baltimore
Tyler, Amelia L.	Peninsula Gen'l Hospital	Salisbury
White, M. Adelaide	St. Joseph's Hospital	Baltimore
MASSACHUSETTS		
Albright, Alta M.	St. Luke's Hospital	New Bedford
Bishop, Mrs. Jessie	2 Kingsbury St.	Worcester
Blandford, Kate	Addison Gilbert Hospital	Gloucester

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Bond, Mrs. Helen C.***	116 Cottage St.	East Hampton
Bond, Lula G.	U. S. Marine Hosp.	Brighton
Bralley, Belva B.	St. Luke's Hospital	New Bedford
Chisholm, Elsie W.	33 Orchard St.	Malden
Clough, Dorothy A.	House of Mercy Hospital	Pittsfield
Constandi, Constance F.	House of Mercy Hospital	Pittsfield
Craven, Helen K. (Life member Am. Ass'n)	Long Lake, Goldsmith St.	Littleton Common
Duxbury, Beulah	U. S. Naval Hospital	Chelsea
Garrity, Mary E.	Worcester City Hospital	Worcester
Gerrard, Gertrude M.	Peter Bent Brigham Hospital	Boston
Heikel, Anne Viola	Newton Hospital	Newton Lower Fall
Hodgins, Agatha Hon. President A.A.N.A.		Chatham
Kelly, Ida B.	Lowell General Hospital	Lowell
Kennedy, Mrs. Doris D.	Peter Bent Brigham Hospital	Boston
Lank, Betty E.*	Children's Hospital	Boston
Leslie, Ethel L.	2 Auburn St.	Brookline
MacArthur, Mrs. Kath. E.	Free Hospital for Women	Brookline
MacFadden, Shamah N.	Leominster Hospital	Leominster
MacRae, Elizabeth F.**	Peter Bent Brigham Hospital	Boston
Mosher, Faye R.	Harrington Mem'l Hospital	Southbridge
Nesmith, Mrs. Aksenia	Waltham Hospital	Waltham
Ramsey, Gladys E.	7 High St.	Whitinsville
Richardson, Virginia L.	10 Bennett St.	Beverly
Ritchie, Shina F.	39 Moody St.	Chestnut Hills
Rosenberg, Mrs. Laura S.	Newton Hospital	Newton Lower Fall
Sr. M. Agnes	St. Vincent's Hospital	Worcester
Sr. M. Angelica	St. Vincent's Hospital	Worcester
Sr. M. Angeline	Mercy Hospital	Springfield
Sr. M. Ann	St. Luke's Hospital	Pittsfield
Sr. M. Anthony	St. Vincent's Hospital	Worcester
Sr. M. Armand	St. Luke's Hospital	Pittsfield
Sr. M. of Assisi	St. Vincent's Hospital	Worcester
Sr. M. Benedicta	St. Vincent's Hospital	Worcester
Sr. M. Bernardina	St. Vincent's Hospital	Worcester
Sr. M. Camilla	Mercy Hospital	Springfield
Sr. M. of Divine Infant	Mercy Hospital	Springfield
Sr. M. Ellen	St. Vincent's Hospital	Worcester
Sr. M. Felicitas	Farren Memorial Hospital	Montague City
Sr. M. George	St. Vincent's Hospital	Worcester
Sr. M. Ignatius	St. Luke's Hospital	Pittsfield
Sr. M. Incarnatus	Providence Mother House	Holyoke
Sr. M. Lawrence Justinian	St. Vincent's Hospital	Worcester
Sr. M. Laurentine	St. Luke's Hospital	Pittsfield
Sr. M. Loreto	St. Vincent's Hospital	Worcester
Sr. M. Loyola	Mercy Hospital	Springfield
Sr. M. Norbert	St. Vincent's Hospital	Worcester
Sr. M. Philip Benizi	Providence Hospital	Holyoke
Sr. M. Seraphia	Guild of Holy Child	Westfield
Sr. M. of Seven Dolors	St. Vincent's Hospital	Worcester
Sr. M. Theresa of Holy Child	Mercy Hospital	Springfield
Sr. Mary of Victory	St. Luke's Hospital	Pittsfield
Smith, Marion	Newton Hospital	Newton Lower Fall
Spaulding, Mrs. Eliz. R.	Massachusetts General Hosp.	Boston
Stevens, Jean A.	Salem Hospital	Salem
Sword, Esther	Shriner's Hospital	Springfield
Wilson, Mrs. Jeanie L.	Pondville Hospital	Wrentham
Zukas, Adele M.	33 Jefferson St.	Worcester

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MICHIGAN

All, Hazel	2199 Cadillac Ave.	Detroit
Allison, Clara E.	Community Hospital	Battle Creek
Anderson, Marion***	139 Chandler St.	Highland Park
Aubrey, Ann E.	Strathmore Hotel	Detroit
Baird, Lillian*	1308 Geddes Ave.	Ann Arbor
Barhite, Opal R.	General Hospital	Bay City
Barron, Loretta	Leila Y. Post Hospital	Battle Creek
Bednarick, Helen	St. Joseph Mercy Hospital	Detroit
Bell, Doris E.	Woman's Hospital	Detroit
Bilyea, Clara M.	950 Atkinson Ave.	Detroit
Blakley, Sarah I.	Children's Hospital	Detroit
Boyer, Dorothy R.	1675 Woodward Ave.	Pontiac
Brown, Z. Barbara	726 W. Washington Ave.	Jackson
Buferd, Evelyn Y.	22915 Beech	Dearborn
Cahaney, Mrs. M. F.	12080 St. Aubin St.	Detroit
Colemen, Elizabeth	19221 Yacania St.	Detroit
Coles, Margaret M.	12747 Wade	Detroit
Coté, Angela B.	1298 Fourth St.	Muskegon
Courtney, Mabel E.	Grace Hospital	Detroit
Crawford, Althea M.	Blodgett Memorial Hospital	Grand Rapids
Crosby, Alice C.	1209 E. Michigan Ave.	Jackson
Davis, Mrs. Laura	University of Michigan Hosp.	Ann Arbor
Deeks, Dorothy	3740 John R. St.	Detroit
Derks, Elizabeth	416 W. Ganson St.	Jackson
Drobnek, Helen C.	Mercy Hospital	Benton Harbor
Dudewicz, Helen	2903 S. Jefferson Ave.	Saginaw
Dutton, Philomena	St. Joseph Mercy Hospital	Pontiac
Eastby, Mrs. Ada B.	319 Conant St., S.E.	Grand Rapids
Eckhart, Carmen A.	3005 W. Chicago Blvd.	Detroit
Edwards, Mrs. Vera R.	222 Shelden Ave.	Houghton
Engum, Eletta	19221 Yacania St.	Detroit
Fanning, Frances E.	University Hospital	Ann Arbor
Fife, Marie C.	Mercy Hospital	Benton Harbor
Filter, Ruth M.	Hurley Hospital	Flint
Fleming, Bridget A.	216 Graham St.	Saginaw
Fletcher, Mary J.	Receiving Hospital	Detroit
French, Mrs. Bessie M.	1745 Brookside Drive	Flint
Friedrich, Catherine T.	St. Joseph Mercy Hospital	Detroit
Galbraith, A. Maude	212 Antisdel Place, N.E.	Grand Rapids
Gariepy, Mary Cecelia	312 Park Ave.	Royal Oak
Goense, Joan	460 Eleanor St., N.E.	Grand Rapids
Golnick, Meta	Hurley Hospital	Flint
Goode, Margaret T.	Herman Kiefer Hospital	Detroit
Grebstad, Borghild	Providence Hospital	Detroit
Greenway, Emma	Receiving Hospital	Detroit
Gribble, Mrs. Lenore E.	7368 Poe Ave.	Detroit
Hain, Alice L.	3245 E. Jefferson Ave.	Detroit
Hanke, Caroline	18940 Appoline	Detroit
Hall, Madeline	3228 N. Term St.	Flint
Hannan, Marion M.	324 E. Bethune St.	Detroit
Hartley, Ora M.	Beyer Memorial Hospital	Ypsilanti
Hazzard, Mrs. Mary	212 W. Maple St.	Fremont
Heaston, Mary E.	Hurley Hospital	Flint
Hendricks, Esther M.	Harper Hospital	Detroit
Hill, Maude	203 E. Franklin St.	Houghton
Holmquist, Edith***	113 So. Portage St.	Buchanan
Hopkins, Mrs. Ida M.	8321 Grand River Ave.	Detroit
Howard, Mrs. Florence C.	432 E. Hancock St.	Detroit
Huebner, Emma M.	St. Luke's Hospital	Marquette

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Huffman, Annie	Delray General Hospital	Delray
Ilgenfritz, E. Louise	St. Joseph's Mercy Hospital	Detroit
Jackson, Mrs. Nelle B.	833 Nottingham Ave.	Grosse Pointe
Kempton, Christine B.	7470 Byron Ave.	Detroit
Killingworth, Aleise	2567 W. Grand Blvd.	Detroit
Kinloch, Dorothy C.	Receiving Hospital	Detroit
Koontz, Geneva C.	Hurley Hospital	Flint
Krewson, Josephine E.	1585 Sixth St.	Muskegon
Lane, Maud	W. A. Foote Memorial Hosp.	Jackson
Leuzinger, Mrs. Dorothy	160 Glendale Ave.	Highland Park
Long, Florence H.	Saginaw General Hospital	Saginaw
Longley, Ella K.	Pauline Stearns Hospital	Ludington
McClintock, Mary E.	Woman's Hospital	Detroit
McFarland, Ethelyn J.	Providence Hospital	Detroit
McGarry, Mary E.	Mercy Hospital	Bay City
McKnight, Mary T.	Saginaw General Hospital	Saginaw
McNally, Hilda	Eloise Hospital	Eloise
McWherter, Mrs. Alice S.	87 Poplar St.	Wyandotte
Madigan, Josephine	12094 Findlay St.	Detroit
Marion, Marion M.	Children's Hospital	Detroit
Martin, Mrs. Mary S.	218 Ferris St.	Ypsilanti
Mason, Esther R.	Blodgett Memorial Hospital	Grand Rapids
Masselink, Mrs. Lucy C.		McBain
Meil, Esther J.	8231 Merrill	Detroit
Meurin, Ruth O.	Harper Hospital	Detroit
Moir, Ethel M.	847 Lothrop Ave.	Detroit
Moran, Ann	Borgess Hospital	Kalamazoo
Muccili, Janette E.	Grand View Hospital	Ironwood
Myers, Esther C.	Mt. Carmel Mercy Hospital	Detroit
Myers, Mrs. Gertrude	15495 Manor Ave.	Detroit
Nettleblade, Augusta B.	University of Michigan Hosp.	Ann Arbor
Obenhoff, E. Cecelia	St. Joseph's Mercy Hospital	Pontiac
Olzem, Catherine H.	12101 Laing	Detroit
Palmer, Mrs. Anna M.	General Hospital	Highland Park
Pearce, Mrs. Leona H.	1160 Seward Ave., Apt. 415	Detroit
Perry, Irene M.	Leila Y. Post Hospital	Battle Creek
Perry, Mae A.	Goodrich Memorial Hospital	Goodrich
Poppen, Irma H.	3245 E. Jefferson Ave.	Detroit
Read, Ruth B.		
Rice, Jessie L.	St. Mary's Hospital	Saginaw
Ripley, A. Valerie	1575 Woodward Ave.	Pontiac
Rosenbaum, Leah L.	Mercy Hospital	Benton Harbor
Rusche, Vied M.	16530 Patton Ave.	Detroit
Sr. M. Alacuoque	St. Joseph's Hospital	Menominee
Sr. M. Alfreda Venner	St. Mary's Hospital	Grand Rapids
Sr. M. Aquina Leenders	St. Francis Hospital	Escanaba
Sr. M. Assumpta	St. Joseph's Mercy Hospital	Detroit
Sr. Clara Behnke	Evangelical Deaconess Hosp.	Detroit
Sr. M. Constance Steffes	Borgess Hospital	Kalamazoo
Sr. M. Ethelreda	St. Joseph's Mercy Hospital	Pontiac
Sr. Eulalia McGivern	Mt. Carmel Mercy Hospital	Detroit
Sr. Helen Marie Hughes	Mt. Carmel Mercy Hospital	Detroit
Sr. M. Henrietta	St. Mary's Hospital	Bay City
Sr. M. James Rice	Mercy Hospital	Marquette
Sr. M. Madaline McGee	St. Mary's Hospital	Grand Rapids
Sr. M. Stella Kearney	St. Mary's Hospital	Grand Rapids
Sr. M. Sylvester Duffy	St. Joseph's Hospital	Mt. Clemens
Sahl, Margaret	Butterworth Hospital	Grand Rapids
Sams, Goldie P.	93 E. Alexanderine Ave.	Detroit
Schoonbeck, Mrs. Bertha S.	Box 165	Plainwell

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Sedwick, Gertrude	A. N. C., Station Hospital, Fort Custer	Battle Creek
Sheehan, Elizabeth	Jennings Hospital	Detroit
Sheehan, Kay	Henry Ford Hospital	Detroit
Simco, Mrs. Josephine	Wyandotte General Hospital	Wyandotte
Singer, Barbara	8328 Townsend Ave.	Detroit
Smith, Mary B.	Receiving Hospital	Detroit
Snider, Ada	Grace Hospital	Detroit
Snyder, Hazel P.	Eloise Hospital	Eloise
Stefaniak, Anna B.	Eloise Hospital	Eloise
Stipe, Pattie M.	Florence Crittenton Hospital	Detroit
Stoddard, Lillian	Wyandotte General Hospital	Wyandotte
Sturgeon, Kathleen	University of Michigan Hosp.	Ann Arbor
Sullivan, Mary A.	1190 Seward Ave.	Detroit
Swindell, Mrs. Agnes M.	Bell Block	Benton Harbor
Thomas, Nathalia M.	Harper Hospital	Detroit
Tucker, Helen F.	Woman's Hospital	Detroit
Turnbull, Mrs. Laurel C.	2322—3rd St.	Wyandotte
Walker, Virginia S.	1702 Roselawn Ave.	Royal Oak
Watson, Ethel M.	Highland Park Gen'l Hosp.	Highland Park
Weick, Anna M.	United States Marine Hosp.	Detroit
Weigand, Marion L.	1025 Randolph St.	Traverse City
Wessinger, Ione**	7470 Byron Ave.	Detroit
Wilkinson, Vera S.	3270 Sophia St.	Wayne
Woodcock, Sarah A.	16860 Stansbury St.	Detroit
Wright, Mrs. Mildred	2440 Grand Ave.	Detroit
Zollman, Mrs. Alice V.	R. F. D. No. 2	Pontiac

MINNESOTA

Anderson, Palma A.*	Deaconess Hospital	Minneapolis
Baer, Maple A.	St. John's Hospital	St. Paul
Baucum, Fern	St. Mary's Hospital	Minneapolis
Becker, Frieda	Ashton Memorial Hospital	Pipestone
Bergman, Ruth E.	Northwestern Hospital	Minneapolis
Bleedorn, Agnes	St. John's Hospital	St. Paul
Boyer, Alpha J.	Midway Hospital	St. Paul
Cleary, Kathleen M.	St. Luke's Hospital	St. Paul
Crotty, Rosella	Virginia Municipal Hospital	Virginia
Esler, Margaret R.	St. Joseph's Hospital	St. Paul
Eyk, Helen E.	Montevideo Hospital	Montevideo
Festler, Evelyn E.	Winona General Hospital	Winona
Filla, Julia	Abbott Hospital	Minneapolis
Gaertner, Elizabeth	St. Mary's Hospital	Minneapolis
Ginther, Winifred	2725—17th Ave., So.	Minneapolis
Gregoire, Antoinette B.	St. Andrew's Hospital	Minneapolis
Gronvold, Marie J.	St. Joseph's Hospital	St. Paul
Groznik, Olga V.	Miller Hospital	St. Paul
Halvorson, Gladys M.	Box 215	Cokato
Haug, Camilla	Swedish Hospital	Minneapolis
Hutcheon, Mary Ethel	Winona General Hospital	Winona
Janovich, Mary C.	Miller Hospital	St. Paul
Johnson, Anna	Rice Memorial Hospital	Willmar
Johnson, Mrs. Iner V.	142—15th Ave., N. E.	No. St. Paul
Jurgensen, Katherine D.	Swedish Hospital	Minneapolis
Kallestad, Mrs. Virginia V.		Hutchinson
Kalstrom, Clarice C.	Milan Hospital	Milan
Kastner, Mrs. Mona Hagen	Eitel Hospital	Minneapolis
Kiely, Ruth G.	St. Barnabas Hospital	Minneapolis
Kippen, Janet	Asbury Hospital	Minneapolis
Layne, Myrtle M.	103—6th Ave., S. W.	Rochester

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Lohman, Clarice L.	Ancker Hospital	St. Paul
Lonergan, Ellen M.	2027 Grand Ave.	St. Paul
Lundgaard, Mrs. Martha B.	3312 Clinton Ave.	Minneapolis
Lyngstad, Charlotte		Holstad
McDonald, Hazel	225—4th Ave., S. W.	Rochester
McQuillen, Florence	Mayo Clinic	Rochester
Matthews, Mildred M.	Abbott Hospital	Minneapolis
Mattson, Sophia H.	Union Hospital	New Ulm
Mechler, Mary	St. Mary's Hospital	Minneapolis
Mirick, Grace	St. Barnabas Hospital	Minneapolis
Nelson, Edith P.	1010 Lincoln Ave.	St. Paul
Nelson, Mrs. Orilla H.	2628 Portland Ave.	Minneapolis
Nichols, Christine	Swedish Hospital	Minneapolis
Niedermeyer, Hilda	103—6th Ave., S.W., Apt. 6	Rochester
Perkins, Florence E.	Miller Memorial Hospital	Duluth
Petersen, Anna C.	2101 Columbus Ave.	Minneapolis
Peterson, Hazel J.**	Fairview Hospital	Minneapolis
Petrowske, Mrs. Marie	Ancker Hospital	St. Paul
Porter, Gertrude H.	St. Luke's Hospital	St. Paul
Retrum, Sarah A.	Miller Hospital	St. Paul
Risse, Mrs. Mayme J.	St. Luke's Hospital	Fergus Falls
Rodenberg, Mrs. Esther	Gillette Hospital	St. Paul
Rosengren, Myrtle E.	1515—10th Ave., So.	Minneapolis
Sr. Caroline Pepemeier	St. Lucas Deaconess Hospital	Fairbault
Sr. Mary Clarentia Kroll	St. Ansgar's Hospital	Moorhead
Sr. Mary Cornelia Lee	St. Francis Hospital	Breckenridge
Sr. Mary Emmanuel	St. Gabriel's Hospital	Little Falls
Sr. Mary Julina Baron	St. Cloud Hospital	St. Cloud
Sr. Mary Leonissa	St. Mary's Hospital	Minneapolis
Sr. St. Elizabeth Heyn	St. Mary's Hospital	Minneapolis
Sr. St. Ignatius	St. Joseph's Hospital	St. Paul
Sr. Theolinda Gottwald	St. Cloud Hospital	St. Cloud
Sr. Xavier Reeves	St. Vincent's Hospital	Crookston
Salmen, Mrs. Clara P.	St. Barnabas Hospital	Minneapolis
Sandberg, Elvy	St. Andrew's Hospital	Minneapolis
Schmidt, Bernice C.	Miller Hospital	St. Paul
Schoen, Esther C.	619 So. Cedar St.	Owatonna
Sedmihradsky, Lillian	Asbury Hospital	Minneapolis
Snobeck, Mrs. Selma M.	1412 E. 24th St.	Minneapolis
Toenberg, Ruth	Fairview Hospital	Minneapolis
Toomey, Mrs. Martha M.	St. Mary's Hospital	Duluth
Van Dam, Esther	Abbott Hospital	Minneapolis
Vig, Gusta	Fairview Hospital	Minneapolis
Walthers, Ruth	Minneapolis General Hospital	Minneapolis
Wass, Agnes		Oak Park
Whalen, Margaret Elinor	Hibbing General Hospital	Hibbing
Willcutt, Ethel M.	Asbury Hospital	Minneapolis

MISSISSIPPI

Adams, Dovie	Methodist Hospital	Hattiesburg
Angland, Mary Margaret	923 — 39th St.	Meridian
Bramlett, Mrs. Janie	Bramlett Clinic	Oxford
Burris, Maurine	King's Daughters' Hospital	Brookhaven
Collins, Susie May**	Drs. Trudeau and O'Mara	Biloxi
Corn, Mrs. Minnie M.	LeFlore Hospital	Greenwood
Easterling, Mrs. Emma	Vicksburg Clinic	Vicksburg
Ellezey, Mrs. Hettye	Riley Clinic	Meridian
Francis, Louise	Clarksdale Hospital	Clarksdale
Hallett, Mrs. Cordelia H.	Gamble Bros. & Archer Clinic	Greenville
Hatchett, Mrs. Harriett	Doster Hospital	Columbus

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Hester, Allene	Jackson County Hospital	Pascagoula
Maddox, Mrs. Marie Irby	Dr. E. E. Robinson	Meridian
Mason, Mrs. Irene	Drs. Hirsch, Beck & Eubank	Greenville
McMillin, Mrs. Claude E.	619 E. Broadway	Yazoo City
Morgan, Mrs. Ruth P. G.	Methodist Hospital	Hattiesburg
Thompson, Ellie	Columbus Hospital	Columbus
Walker, Mrs. Grace Bell	Gamble Clinic	Greenville
Wates, Mrs. Elizabeth N.*	3950 Council Circle	Jackson
Young, Effie	Pontotoc Clinic	Pontotoc

MISSOURI

Alvey, Zelma Ellen	Barnes Hospital	St. Louis
Atkinson, Florence	De Paul Hospital	St. Louis
Bauer, Mrs. Mary H.***	3316 Carson Road	St. Louis
Bieberdorf, Bertha	Missouri Pacific Hospital	St. Louis
Bohn, Mrs. Doris M.	7067 Forysthe Blvd.	St. Louis
Brake, M. Eunice	912 Kingsbury	Springfield
Buenger, Viola M.	1177 Tompkin St.	St. Charles
Cox, Anna	4405 W. Pine Blvd.	St. Louis
Craddock, Alice	Christian Hospital	St. Louis
Eberhardt, Dean	Barnes Hospital	St. Louis
Fuller, Irene June		Fort Riley
Gay, Reva	5512 Delmar	St. Louis
Gettinger, Anna L.	St. Louis City Hospital	St. Louis
Glenn, Mrs. Tommie P.	Deaconess Hospital	St. Louis
Grant, Mrs. Margaret Ann	5535 Delmar	St. Louis
Gronewald, Alice H.**	Barnes Hospital	St. Louis
Hansbrough, Elizabeth	Station Hospital	Fort Leonard Wood
Hartmeister, Meta	2319 A South Compton	St. Louis
Hodges, Mildred*	Missouri Baptist Hospital	St. Louis
Huff, Mrs. Verda K.	810 Park St.	Carrollton
Lamb, Helen	Barnes Hospital	St. Louis
Lindsey, Jessie	4504 Laclede	St. Louis
Macaratis, Frances Lee	Barnes Hospital	St. Louis
Marcum, Edith	Jewish Hospital	St. Louis
Mittendorf, Mrs. Leota S.	315 Kirpatrick Bldg.	St. Louis
Myers, Mrs. Audrey S.	5454 Loughborough	St. Louis
Nelson, Lucille	825 Charles St.	St. Joseph
Newman, Mrs. Beatrice M.	5 Lindworth Lane	St. Louis
Noon, Regina	4954 West Pine St.	St. Louis
Pettit, Alice	Station Hosp., Camp Crowder	Neosho
Roadman, Bernice	Station Hospital	Ft. Leonard Wood
Sr. M. Canisius Fahey	St. John's Hospital	St. Louis
Sr. Capristrana Hylla	St. Francis Hospital	Washington
Sr. Cyrilla Wellman	St. Joseph's Hospital	Boonville
Sr. Frieda L. Eckoff	Deaconess Hospital	St. Louis
Sr. Meinulpha	St. Francis Hospital	Washington
Sr. Theresa Kettlhut	Deaconess Hospital	St. Louis
Scherer, Pearl	Deaconess Hospital	St. Louis
Sieg, Hattie C.	De Paul Hospital	St. Louis
Slasor, Zelle	1400 Professional Bldg.	Kansas City
Slay, Mrs. Lola	Box 366	Jefferson City
Spleth, Frieda W.	4475 W. Pine	St. Louis
Waltke, Marie Frances***	Park Plaza Hotel	St. Louis
Zumwalt, Mrs. Wilma G.	15 W. Broadway	Columbia

MONTANA

Diefenbaugh, Lela M.	Kennedy Deaconess Hosp.	Havre
Farnham, Mrs. Marg. M.	Billings Clinic	Billings
Gallup, Sadie M.	Murray Hospital	Butte

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Huffman, Mrs. Virginia S.	801 S. Lake Ave.	Miles City
Leonard, Maxine M.	Columbus Hospital	Great Falls
Nelson, Helen D.	Thornton Hospital	Missoula
O'Donnell, Harriett	Murray Hospital	Butte
Peterson, Bertha E.	N. P. B. A. Hospital	Glendive
Reed, Loree J.	825 So. 5th	Bozeman
Sr. Agnes Dooney	Columbus Hospital	Great Falls
Mother Belina Poetz	St. Mary Hospital	Conrad
Sr. M. Charles***	Holy Rosary Hospital	Miles City
Sr. Eugene de Tivoli	St. Patrick Hospital	Missoula
Sr. M. Fanahan***	Holy Rosary Hospital	Miles City
Sr. M. Garina Storck	St. Mary Hospital	Conrad
Sr. M. Lanfrida Becker	St. Mary Hospital	Conrad
Sr. Margaret Mary Horan	920—4th Ave. N.	Great Falls
Sr. M. Matilda***	Holy Rosary Hospital	Miles City
Sr. Peter of Alcantara Adam	Columbus Hospital	Great Falls
Sr. M. Richard	Holy Rosary Hospital	Miles City
Sr. M. Theophana	St. Joseph Hospital	Lewistown
Sr. M. Vericunda	Sacred Heart Hospital	Havre
Sr. Victor	St. Patrick Hospital	Missoula
Stuart, Linda M.	N. P. R. R. Hospital	Missoula
Walsh, Helen D.	Marcus Daly Hospital	Hamilton
Winter, Mrs. Olive E.***	Box 210	Miles City

NEBRASKA

Ackerman, Edith	St. Joseph's Hospital	Omaha
Almquist, Ann	425 West Ave.	Holdrege
Bach, Mrs. Lulu M. Britt	Methodist Hospital	Omaha
Barron, Monee	Methodist Hospital	Scottsbluff
Brich, Marcella Rose	St. Catherine's Hospital	Omaha
Brogan, Ellen	1103 South St.	Lincoln
Bulin, Ada	Methodist Hospital	Scottsbluff
Christensen, Ruby	Clarkson Hospital	Omaha
Dickinson, Agnes G.	Lutheran Hospital	Omaha
Dorsey, Josephine J.	Nicholas Senn Hospital	Omaha
Dugan, Elizabeth I.	2464 Harney St.	Omaha
Ganzel, Charlotte A.	Nicholas Senn Hospital	Omaha
Gulotta, Mrs. Wilhelmina*	1734 South 17th	Lincoln
Hain, Agnes G.	Bishop Clarkson Mem'l Hosp.	Omaha
Jennings, Lucinda G.		Lexington
Kramer, Josephine E.	Box 58	Columbus
Lenze, Gladys L.	Lincoln General Hospital	Lincoln
Miller, Lillian	Roche Hospital	Sidney
Nehring, Mrs. Laura V.	Orthopedic Hospital	Lincoln
Omig, Mrs. Ruth E.	3452 Larimore Ave.	Omaha
Owens, Mrs. Mabel R.	Immanuel Deaconess Hospital	Omaha
Pratt, Mabel A.	Lutheran Hospital	Norfolk
Sr. Marie Anderson***	Immanuel Deaconess Hospital	Omaha
Sr. Mary Angeline	St. Mary's Hospital	North Platte
Sr. M. Asella	St. Elizabeth's Hospital	Lincoln
Sr. M. Claire Connelly	St. Joseph's Hospital	Alliance
Sr. M. Marcella Kavanaugh	St. Catherine's Hospital	Omaha
Sr. M. Ursula Dixon	St. Mary's Hospital	Nebraska City
Schaffer, Anna May	Methodist Hospital	Omaha
Schrader, Lola M.	Bryan Memorial Hospital	Lincoln
Seni, Helen C.	St. Francis' Hospital	Grand Island
Svoboda, Kathryn C.	Nicholas Senn Hospital	Omaha
VanSweringen, Bertha	Grand Island Clinic	Grand Island
Woodgate, Mrs. Marie E.	109 West 7th St.	North Platte
Young, Pauline**	Bryan Memorial Hospital	Lincoln

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NEW HAMPSHIRE

Pedersen, Carin H.	Portsmouth Gen'l Hospital	Portsmouth
Schmanska, Katherine I.	Mary Hitchcock Mem'l Hosp.	Hanover

NEW JERSEY

Aberg, Harriet L.	Muhlenberg Hospital	Plainfield
Alburger, Mrs. Frances M.	St. James Hospital	Newark
Armstrong, Anna E.	201 Lyons Ave.	Newark
Bader, Marie A.	392 Neville St.	Perth Amboy
Ball, Mrs. Dorothy	157 N. Tenth St.	Highland Park
Bergman, Mrs. Cora C.	349 Montrose Ave.	S. Orange
Boughton, Mrs. Nancy B.	759 High St.	Newark
Bryant, Laura D.	Cooper Hospital	Camden
Calden, Mrs. Mary P.	Elizabeth General Hospital	Elizabeth
Cook, Maude M.	Presbyterian Hospital	Newark
Dangler, Jessie M.	Dr. E. C. Hazard Hospital	Long Branch
DeFelice, Josephine	Beth Israel Hospital	Newark
Dwyer, Elizabeth A.	All Souls Hospital	Morristown
Egan, Mrs. Ora T.***	1274 Barbara Ave.	Union
Farmer, Mrs. Elizabeth***	7 Blake Ave.	Cranford
Fuller, Mrs. Nancy I.	Beverly Road	Burlington
Gaumer, Mrs. Miriam S.	422 First St.	Lakewood
Glick, Marie	Cooper Hospital	Camden
Graf, Nellie P.	Monmouth General Hospital	Long Branch
Hale, Mrs. Florence V. M.*	St. Peter's General Hospital	New Brunswick
Holcombe, Mrs. Emily M.	15 Washington St.	Newark
Hopper, Anna F.	St. Barnabas Hospital	Newark
Horesta, Mrs. Elizabeth J.	58 Burgess St.	Passaic
Horne, M. Catherine	929 Revere Ave.	Trenton
Horwitt, Bebe M.**	St. Peter's General Hospital	New Brunswick
Horwitz, Mrs. Elizabeth R.	254 Morse St.	Camden
Johnson, Mrs. Ruth K.	387 E. Main St.	Somerville
Kalnoske, Ada C.	N. J. State Hospital	Marlboro
Lowery, Martha E.	St. Barnabas Hospital	Newark
Loyd, Belle	Overlook Hospital	Summit
McFadden, Olive M.	Cooper Hospital	Camden
McGarry, Helen M.	Memorial Hospital	Morristown
Marren, Alma D.	St. Francis Hospital	Trenton
Maunsell, Wilma	201 Lyons Ave.	Newark
Minteer, Sara A.	Franklin Hospital	Franklin
Mitchell, Mrs. Susan B.***	270 Montclair Ave.	Newark
Morang, Elizabeth H.	St. Vincent Hospital	Montclair
Patterson, Pearl C.	Dr. E. C. Hazard Hospital	Long Branch
Phander, Velma	Underwood Hospital	Woodbury
Rea, Pauline K.	General Hospital	Elizabeth
Reynolds, Harriet E.	Memorial Hospital	Morristown
Sister M. Benildis Schumm	St. Francis Hospital	Trenton
Sister Grace B. O'Connor	All Souls' Hospital	Elizabeth
Shekletski, Blanche	Elizabeth General Hospital	Morristown
Sheppa, Pauline A.	Atlantic City Hospital	Atlantic City
Stafford, Kathryn A.	Cooper Hospital	Camden
Stone, Mae	Presbyterian Hospital	Newark
Strom, Ruth E.	300 Carteret Place	Orange
Sutton, Alberta	Middlesex Hospital	New Brunswick
Underhill, Ethel L.	W. Jersey Homeopathic Hosp.	Camden
VanderBurgh, Geraldine G.	Atlantic City Hospital	Atlantic City
Waters, Frances Mae	Cooper Hospital	Camden
Weaver, Gertrude M.	Princeton Hospital	Princeton
White, Mrs. Helen F.	Beth Israel Hospital	Newark

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Winsor, Mrs. Phyllis G.	Presbyterian Hospital	Newark
Witmer, Mrs. Elizabeth D.	Middlesex Hospital	New Brunswick
Woram, Mrs. Leona D.	11 Pine Ave.	West Long Branch
NEW MEXICO		
Hoyt, Gladys	Carrie Tingley Hospital	Hot Springs
Murray, Edna M.	Tucumcari Gen'l Hospital	Tucumcari
Parsons, Bertha G.***		Shiprock
Sister M. Rose Demuth	St. Francis Hospital	Carlsbad
Williams, Mrs. Clara P.	900 E. Silver	Albuquerque
NEW YORK		
Anderson, Mrs. Sally A.	210 East 64th St.	New York
Anderson, Thorene G.	St. Francis Hospital	Olean
Armstrong, Ethel	39 Auburn Place	Brooklyn
Angelo, Mary E.	Ellis Hospital	Schenectady
Arthur, Joan H.	Temporary Address 14 Lennox Road, South Southsea Hants	England
Barry, Margaret C.	St. Mary's Hospital	Rochester
Bartruff, Sara C.	Southampton Hospital	Southampton, L. I.
Bates, Gyda	Caledonian Hospital	Brooklyn
Bean, Verna E.	480 Herkimer St.	Brooklyn
Bentz, Rosemary F.	18 East 48th St.	New York
Bieber, Clara G.	141 West 109th St.	New York
Billmeyer, Hancie M.	Wyckoff Heights Hospital	Brooklyn
Blanchard, Hazel (Honorary Member, N. Y. Ass'n)	2342—15th St.	Troy
Bordes, Suzanne T.	4401—34th Ave.	Astoria, L. I.
Buckley, Ann D.	Boulevard Hospital	Long Island City
Burch, Ethel C.	Columbus Hospital	New York
Bush, Genevieve	Memorial Hospital	Catskill
Camerer, Gladys M.	St. John's Riverside Hospital	Yonkers
Carruthers, Aletha H.***	White Plains Hospital	White Plains
Canty, Agnes K.	Brooklyn Hospital	Brooklyn
Casabella, Mrs. Kathrine	118 Fleetwood Ave.	Albany
Clarisse, Elsie M.	1117 Plymouth Ave.	S. Rochester
Clode, Mrs. Mary	360 Adelphia St.	Brooklyn
Cogswell, Marion C.***	White Plains Hospital	White Plains
Colleran, Emma A.	Ellis Hospital	Schenectady
Collins, Agnes G.	New York Hospital	New York
Cook, Mildred	Coney Island Hospital	Brooklyn
Craven, Helen K. Life Memb. Am. Ass'n	Long Lake, Goldsmith St. (temporary address)	Littleton Common, Mass.
Curtin, Joan	Troy Hospital	Troy
Danaher, May G.	1845 Becker St.	Schenectady
Desmond, Mary F.	North Country Community Hospital	Glen Cove, L. I.
Doar, Mary E.	334 N. Fulton Ave.	Mt. Vernon
Dobbie, Marie P.	63 North Hampton St.	Buffalo
Doherty, Rose Ann	Mary McClellan Hospital	Cambridge
Dolce, Mildred R.	496 Swan St.	Buffalo
Dolffs, Irmgard von B.	Hospital for Ruptured and Crippled	New York
Donohue, Eileen	White Plains Hospital	White Plains
Dougan, Janet B.**	Morrisania Hospital	New York
Doughton, Elizabeth	Methodist Hospital	Brooklyn
Dougherty, Donna D.	Chas. S. Wilson Mem'l Hosp.	Johnson City
Eberle, Mrs. Giuseppina	Coney Island Hospital	Brooklyn

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Edwards, Mrs. Pauline	748 E. 39th St.	New York
Erickson, Margaret E.	Strong Memorial Hospital	Rochester
Fairbanks, Mildred G.	1165 Delaware Ave.	Buffalo
Fisher, Mrs. Elizabeth T.	Nassau Hospital	Mineola, L. I.
Fitzgerald, Sarah L.	815 Seward St.	Rochester
Flanagan, Mrs. Helen G.***	44 Cortland St.	Norwich
Foley, Margaret C.	Troy Hospital	Troy
Foley, Virginia M.	Strong Memorial Hospital	Rochester
Fowler, Mrs. Sophie K.	38 East 85th St.	New York
Foy, Cora Lee	210 East 64th St.	New York
Franke, Elsa E.	1484 Glenwood Boulevard	Schenectady
Gale, Mrs. Mary S.***	223 Maple Ave.	Riverhead, L. I.
Gallon, Martha	Coney Island Hospital	Brooklyn
Gardner, Mrs. Anna M. S.	Meadowbrook Hospital	Hempstead, L. I.
Geiss, Mrs. Helen M.	Strong Memorial Hospital	Rochester
Gilleran, Gertrude M.	Sta. B., Hudson River State Hospital	Poughkeepsie
Gittleman, Sadie R.	St. John's Riverside Hospital	Yonkers
Giudice, Mrs. Clarice S.	2 Delafield Ave., W.N.B.	Staten Island
Glenn, Martha K.	108 S. Village Ave.	Rockville Center, L. I.
Glenz, Muriel M.	Minor Surgical Nursing Service	Hempstead, L. I.
Goff, Genevieve N.	Jamaica Hospital	Jamaica, L. I.
Graham, Ada M.	141 West 109th St.	New York
Graham, Mary	Temporary Address: Churchill's Hospital	Oxford, England
Hansell, Lois K.	136 N. Pearl St.	Buffalo
Hardy, Ada M.	154 Bishop St.	Watertown
Harvey, Alyce M.	Carson C. Peck Mem'l Hosp.	Brooklyn
Haubennestel, Mrs. Ruth H.***	Vassar Brothers Hospital	Poughkeepsie
Healy, Mrs. Thomas J.***	1940 East Tremont St.	Parkchester, Bronx
Hendrickson, Grace L.	Meadowbrook Hospital	Hempstead, L. I.
Henneberger, Martha M.	Women's Hospital	New York
Hess, Mrs. Frances*	Long Island College Hospital	Brooklyn
Hickman, Evelyn	The Brooklyn Hospital	Brooklyn
Hodges, Ruth L.	570 Crown St.	Brooklyn
Hoge, Esther H.	700 West 168th St.	New York
Howe, Icie Evelyn	1320 York Ave.	New York
Hughes, Grace G.	Women's Hospital	New York
Jackson, Marguerite M.	Vassar Brothers Hospital	Poughkeepsie
Jenne, Mary A.	Jamaica Hospital	Jamaica, L. I.
Jennings, Gertrude M.	248 Center St.	New Rochelle
Johnston, Maud	317—73rd St.	Brooklyn
Jones, Deborah	528 Warren St.	Albany
Kanter, Albina	235 Bryant St.	Buffalo
Kelly, Agnes M.	1029—47th St.	Brooklyn
Ketcham, Emma A.	51 Mitchell Ave.	Binghamton
Kimball, Athalia M.	Post Graduate Hospital Reconstruction Unit 395 Central Park, West	New York
Kirby, Mrs. Irene L.	Hospital for Ruptured and Crippled	New York
Kline, Ethel C.	553 Warren St.	Hudson
Knitter, Mrs. Consuelo L.	Staten Island Hospital	Staten Island
Korineck, Boldiena A.	Jamaica Hospital	Richmond Hill, L.I.
Kreiger, Mrs. Bessie L.	103 Hooker Ave.	Poughkeepsie
Lambert, Marcella F.	1084 New York Ave.	Brooklyn
Lang, Veronica E.	St. Catherine's Hospital	Brooklyn

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Lapinski, Pauline E.	Long Island College Hospital	Brooklyn
Lemke, Anna C.	Women's Hospital	New York
Lepine, Martha M.	2174—14th St.	Troy
Lewis, Mrs. Elizabeth M.	Alice Hyde Hospital	Malone
Lewis, Mary L.	Ellis Hospital	Schenectady
Lewis, Rhoda	673 Locust St.	Mt. Vernon
Lipinski, Bernice	Strong Memorial Hospital	Rochester
Lisa, Mrs. Marie L. G.	4410 Cayuga Ave.	New York
Litzen, Catherine	1320 York Ave.	New York
Lynch, Eunice	Flushing Hospital	Flushing, L. I.
Lynch, Regina G.	Morrisania Hospital	Bronx
Maher, Lulu Anne	1831—5th Ave.	Troy
Mahon, Mrs. Anne D.	Knickerbocker Hospital	New York
Masler, Catherine A.	105 Carlton Ave.	Brooklyn
Masterson, Mrs. Anne K.	1622—9th Ave.	Watervliet
Mavor, Mrs. Mae	N. Y. Orthopedic Hospital	New York
May, Roberta	39 Palmer Ave.	Bronxville
Mayfield, Lois	218 New York Ave.	Brooklyn
Meek, Mary A.	1255 Delaware Ave.	Buffalo
Miller, Maryon	Brooklyn Jewish Hospital	Brooklyn
Minnick, Hilda I.	North Country Comm'ty Hosp.	Glen Cove, L. I.
Morrow, Dorothy H.	Highland Hospital	Rochester
Moss, Naomi S.	99 Vermont Ave.	Hempstead, L. I.
Moyer, Mrs. Louise D.	339 East 58th St.	New York
Mullin, Sara R.	The New York Hospital	New York
Murphy, Anna D.	Ellis Hospital	Schenectady
MacIver, Kathryn M.	Bay Ridge Sanitarium	Brooklyn
MacMullin, Mrs. Pauline T.	Manhattan Eye, Ear, Nose and Throat Hospital	New York
MacQuarrie, Barbara A.	1919 Madison Ave.	New York
McCann, Susan	Greenpoint Hospital	Brooklyn
McCoy, Mrs. Charlotte	The New York Hospital	New York
McFadden, Dessie	1303 York Ave.	New York
McKay, Cora (Honorary Member, N. Y. Ass'n)	Albany Hospital	Albany
McKeon, Anna	Children's Hospital	Buffalo
McQuilton, Ida May	Nassau Hospital	Mineola, L. I.
Neff, Lois Mae	300 Lenox Road	Brooklyn
Newland, Dorothy A.	3089 Decatur Ave.	Bronx
Norris, Anna V.	United Hospital	Portchester
Oberlin, Edith	New York Hospital	New York
O'Connor, Anna V.	St. Catherine's Hospital	Brooklyn
O'Mara, Margaret M.	2787 Main St.	Buffalo
O'Neill, Mrs. Veronica T.	314 Elizabeth St.	Ogdensburg
O'Toole, Ruth	36 Ellwood St.	New York
Patten, Helen L.	62 Chestnut St.	Cohoes
Paxson, Verda Ellen	20 Park Ave.	New York
Peisher, Lillian J.	Newark State School	Newark
Penland, Anne	Presbyterian Hospital	New York
Perry, Mary Frances	309 East 49th St.	New York
Peskin, Edith M.	170 West 76th Street	New York
Peters, Mrs. Helen U.***	R. F. D.	Gowanda
Phillips, Frances K.	Hudson City Hospital	Hudson
Pollack, Julia R.	Roosevelt Hospital	New York
Ponti, Katherine	U. S. Marine Hospital	Stapelton, S. I.
Power, Mrs. Ethel H.	88 Horatio St.	New York
Prentice, Mildred V.	Bethany Deaconess Hospital	Brooklyn
Rabinowitz, Frances	Staten Island Hospital	Tompkinsville, S.I.
Racette, Alice M.	Ellis Hospital	Schenectady

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Rees, Madge	Box 95	Niskaguna (Albany Co.)
Reusch, Edith Marion	Post Graduate Hospital Reconstruction Unit 395 Central Park West	New York
Rider, Ruth	Yonkers General Hospital	Yonkers
Riebhoff, Grace H.	267 S. Ocean Ave.	Freeport, L. I.
Riefel, Helen G.	Highland Hospital	Rochester
Roach, Evelyn A.	325 East 77th St.	New York
Roberge, Jeanne	Cumberland Hospital	Brooklyn
Robertson, Mrs. Eliz.***	671 S. Main St.	Farmingdale, L.I.
Robinson, Hilda J.	53 Sound Ave.	Riverhead, L.I.
Rogge, Mrs. Anna K.	260 Lenox Road	Brooklyn
Root, Dorothy J.	453 Lenox Road	Brooklyn
Ruhlman, June D.	636 Grider St.	Buffalo
Runge, Mrs. Isabelle	1106 State St.	Schenectady
Rupert, Cecile B.	Mather Mem'l Hospital	Port Jefferson
Russell, Jessie G.	The New York Hospital	New York
Russell, Mabel M.	Alice Hyde Hospital	Malone
Sr. Magda Marie	St. Catherine's Hospital	Brooklyn
Sr. Marie de St. Gerard Landriault	St. Charles Hospital	Port Jefferson, L.I.
Sr. Marguerite Soucy	St. Charles Hospital	Port Jefferson, L.I.
Sr. Mary Bernetta Kenny	Mt. Mercy Hospital	Buffalo
Sr. Mary DeSales	Mercy Hospital	Rockville Cen., L.I.
Sr. Mary Inez O'Mailia	Mercy Hospital	Buffalo
Sr. Mary Noreen	St. Catherine's Hospital	Brooklyn
Sr. Mary Nazarene	Mary Immaculate Hospital	Jamaica, L.I.
Sr. Mary St. Joseph Creighton	St. Joseph's Hospital	Elmira
Sister St. Anastasia Desjardine	St. Charles Hospital	Brooklyn
Sister Laure de la Nativite Martin	St. Charles Hospital	Port Jefferson, L.I.
Satterlee, Charlotte D.	Memorial Hospital	Albany
Schmid, Carol	880 Lafayette Ave.	Buffalo
Schmidt, Lucy L.	Hospital for Joint Diseases	New York
Shellenberger, Frances V.	196 Washington Ave.	Brooklyn
Shupp, Miriam G.	Strong Memorial Hospital	Rochester
Slovak, Mrs. Michael	12 Union St.	Schenectady
Smith, Alice C.	Prospect Heights Hospital	Brooklyn
Smith, Caroline B.	605 Professional Building	Hempstead, L.I.
Smith, Golda	458 Lenox Road	Brooklyn
Spear, Elizabeth	United Hospital	Portchester
Spencer, Eva N.	City Hospital	Salamanca
Spongberg, Alice J.	Bay Ridge Sanitarium	Brooklyn
Steffen, Gertrude	Long Island College Hospital	Brooklyn
Stewart, Anna E.	Manhattan Eye, Ear, Nose and Throat Hospital	New York
Strayer, Mary C.	Memorial Hospital	New York
Stroobant, Marie Helen	Park Avenue Hospital	Rochester
Suhrhoff, Marion A.	Mary Immaculate Hospital	Jamaica, L.I.
Sullivan, Margaret F.	Roosevelt Hospital	New York
Tippit, Mrs. Clyde D.	Fordam Hospital	New York
Tobin, Florence G.	Brooklyn Hospital	Brooklyn
Treadway, Mrs. Vera J.	Wyckoff Heights Hospital	Brooklyn
Tschudin, Marie	Vassar Brothers Hospital	Poughkeepsie
VanGordon, Mrs. Alma G.	Long Island College Hospital	Brooklyn
Ward, Gladys	4362 Kissena Boulevard	Flushing, L. I.
Wark, Marion K.	560 West 165th St.	New York

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Weaver, R. Edith	Hudson City Hospital	Hudson
Webb, Mrs. Eleanor D.	Flushing Hospital	Flushing, L. I.
Weisensee, Barbara	Minor Surgical Nurs'g Serv.	Hempstead, L. I.
Wheeler, Olive B.	White Plains Hospital	White Plains
Wilson, Mrs. Ola Mae H.	1156 Academy St.	Watertown
Williams, Muriel E.	Highland Hospital	Rochester
Wright, Anne M.	Nassau Hospital	Mineola, L. I.
Wuest, Gertrude C.	Yonkers General Hospital	Yonkers
Wurtz, Clara A.	200 Wallace Avenue	Buffalo
Yokus, Frances C.	Manhattan Eye, Ear, Nose and Throat Hospital	New York
Ziegler, Martha T.	Swedish Hospital	Brooklyn
Zurinsky, Victoria	506 Sixth St.	Brooklyn

NORTH CAROLINA

Clark, Irene S.	Roanoke Rapids Hospital	Roanoke Rapids
Currie, Mona L.	Moore Co. Hospital	Pine Hurst
Derrick, Ora	James Walker Mem'l Hospital	Wilmington
Draughon, Mrs. Ella A.	Watts Hospital	Durham
Fleming, Maude M.	Box 327	Louisburg
Goodman, Eliza D.	Duke University Hospital	Durham
Green, Annie L.	Randolph Hospital	Asheboro
Hamm, Mrs. Alma S.	Duke University Hospital	Durham
Hardin, Mary S.	Rutherford Hospital	Rutherfordton
Henley, Jamie**	N. C. O. Hospital	Gastonia
Jeffreys, Claudia L.	Watts Hospital	Durham
Luther, Nell	Rex Hospital	Raleigh
Muhleman, Nancy L.	Duke University Hospital	Durham
Sr. M. Anastasia Bergin	Mercy Hospital	Charlotte
Salmon, Carrie I.*	Rex Hospital	Raleigh
Scarborough, Mante	Presbyterian Hospital	Charlotte
Sellars, Bessie L.	416 Front St.	Burlington
Sheppard, Dorothea	Duke University Hospital	Durham
Smith, Carrie E.	Baker Sanitarium	Lumberton
Snively, Mary H.	Duke University Hospital	Durham

NORTH DAKOTA

Ammentorp, Magna	Deaconess Hospital	Grand Forks
Anderson, Cora L.	St. John's Hospital	Fargo
Berg, Sina H.		San Haven
Engen, Christine G.	Trinity Hospital	Minot
Foley, Mrs. Anastatia C.	Good Samaritan Hospital	Williston
Lybeck, Clara	Deaconess Hospital	Grand Forks
McEwen, Gene	Grafton Deaconess Hospital	Grafton
Morris, Lucile E.	Quain & Ramstad Clinic	Bismarck
Peterson, Eunice	Quain & Ramstad Clinic	Bismarck
Sr. M. Agnes Schneider	St. John's Hospital	Fargo
Sr. M. Alban Deplazes	Mercy Hospital	Williston
Sr. M. Angela Maher	Mercy Hospital	Williston
Sr. M. Brendan Tuohy	Mercy Hospital	Langdon
Sr. M. Daria Duerr	Trinity Hospital	Jamestown
Sr. M. Dolorosa	Mercy Hospital	Devil's Lake
Sr. M. Dosithea Swoboda	St. Michael's Hospital	Grand Forks
Sr. M. Eugene Liston	Mercy Hospital	Valley City
Sr. Frances Schwellinger	St. Joseph's Hospital	Dickinson
Sr. Mary Owen	Mercy Hospital	Devil's Lake
Sr. Mary William	St. Joseph's Hospital	Minot
Solberg, Martha S.	Good Samaritan Hospital	Rugby
Stennes, Josephine	Good Samaritan Hospital	Rugby
Truedson, Dorette E.	Deaconess Hospital	Grafton
Winters, Ella A.	St. Luke's Hospital	Fargo

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OHIO

Adams, Lou E.	Cleveland Clinic Hospital	Cleveland
Albertson, Mrs. Josephine	8302 Lake Ave.	Cleveland
Allwein, Aida B.	Mount Sinai Hospital	Cleveland
Armstrong, Mrs. Helen L.	P.O.B. 114, Madisonville	Cincinnati
Arnold, Erina M.	St. Alexis Hospital	Cleveland
Auble, Mada C.	613 Home Sav'gs & Loan Bldg.	Youngstown
Aumend, Mrs. Marvil D.	Mount Carmel Hospital	Columbus
Barnett, Florence M.	Glenville Hospital	Cleveland
Barth, Alice L. Life Memb. Am. Ass'n	Youngstown Hosp. N.S.Unit	Youngstown
Beros, Anna E.***	St. Joseph's Rectory	Toronto
Bischoff, Gretchen P.	City Hospital	Cleveland
Bone, Mrs. Mabel King	1363 Herschel Ave., Hyde Park	Cincinnati
Boswell, Mrs. Florence	1334 Inglewood Drive	Clevel'd Heights
Boyer, Elizabeth	R. D. 1, Turner School-Ohltown Road	West Austintown
Boyle, Dorothy M.	St. Thomas Hospital	Akron
Bradley, Marian F.	St. Luke's Hospital	Cleveland
Brengartner, Mary N.	St. Alexis Hospital	Cleveland
Buehrle, C. Elizabeth	Youngstown Hospital U.S. Unit	Youngstown
Burress, Mrs. Helena S.***	Apt. 101, 753 W. Market St.	Akron
Callot, Mrs. Henriette	2559 Princeton Road	Cleveland
Campbell, Violet	St. Elizabeth's Hospital	Youngstown
Candee, Minerva	University Hospitals	Cleveland
Carney, Helen U.**	Youngstown Hosp. N.S. Unit	Youngstown
Carpenter, Grace E.	Children's Hospital	Cincinnati
Colbert, Margaret B.	Mt. Sinai Hospital	Cleveland
Conricote, Delia	Polyclinic Hospital	Cleveland
Correll, Marian A.	St. Luke's Hospital	Cleveland
Crandall, Helen M.	Woman's Hospital	Cleveland
Crauder, Donna	107 Stockton Ave.	Dayton
Davis, Ruth L.	City Hospital	Cleveland
Dickerson, Mrs. Ann	19443 N. Sagamore Drive	Rocky River
Diederich, Charlotte	705—6th St., N. W.	Canton
Dingledine, Margaret	335 N. Robert Blvd.	Dayton
Dixon, Mrs. Frances	790 East 236th St.	Euclid
Duffy, Florence	St. Vincent Charity Hospital	Cleveland
Ealy, Inez M.	Elyria Memorial Hospital	Elyria
Eldredge, Mildred C.	Detwiler Mem'l Hospital	Wauseon
Fichner, Mrs. Marg. J.***	R. F. D. No. 1	St. Louisville
Fife, Gertrude L. (Honorary Member Ohio Ass'n)	University Hospitals	Cleveland
Franzen, Elizabeth M.	City Hospital	Akron
Gannon, Euphenia	Polyclinic Hospital	Cleveland
Garay, Mrs. Marguerite	St. Luke's Hospital	Cleveland
Gath, Mrs. Fanny E.	Manchester Rd., R. R. No. 2	Middletown
Giffin, Eva M.	De Courcy Clinic	Cincinnati
Graff, Ruth	University Hospitals	Cleveland
Gruler, Imelda M.	Good Samaritan Hospital	Cincinnati
Gruska, Hermina	355 Grant St.	Akron
Hale, Mrs. Dessa C.	Hale Hospital	Wilmington
Hamlett, Winnie G.	City Hospital	Akron
Heckathorn, Helen M.	St. Vincent Charity Hospital	Cleveland
Hollister, Marian	University Hospitals	Cleveland
Hurford, Mrs. Maria G.	Aultman Hospital	Canton
Kaiser, Emilie	University Hospital	Columbus
Kellogg, Mrs. Mary Lucile		Medina
Knicely, Helena K.	R. F. D. No. 5	Zanesville
Knowlton, Mrs. Mary L.	Cleveland Clinic Hospital	Cleveland

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Kocklauner, Florence E.	University Hospitals	Cleveland
Kocklauner, Frances	University Hospitals	Cleveland
Lawson, Alice B.	Fairview Park Hospital	Cleveland
Loflin, Hazel	Youngstown Hosp. N. S. Unit	Youngstown
Lott, Anna M.	Good Samaritan Hospital	Cincinnati
McAllister, Mrs. Marg. A.	10307 Churchill Ave.	Cleveland
McGilliard, Dorothy	223 N. Cooper Ave.	Lockland
McMahon, Janet	University Hospitals	Cleveland
Malone, Mrs. Elizabeth P.	1322 Plum St.	Steubenville
Miller, Mrs. Ada***	540 McPherson Ave.	Lima
Miller, Mary F.	Elyria Memorial Hospital	Elyria
Momeyer, Myrn E.	St. Luke's Hospital	Cleveland
Moore, Clara R.	St. Alexis Hospital	Cleveland
Morgan, Martha	Kimmundy, Ill. (Temporary)	
Nystrom, Ida A.	City Hospital	Akron
Parker, Daisy A.	Youngstown Hosp. S. S. Unit	Youngstown
Pfeifer, Christine K.	Children's Hospital	Columbus
Purcell, Rita	St. Thomas Hospital	Akron
Rathweg, Mary Ruth	Good Samaritan Hospital	Dayton
Rausch, Inez R.	St. Elizabeth Hospital	Youngstown
Renner, Mrs. Naomi	2453 Clybourn Place	Cincinnati
Richards, Lucy E.	City Hospital	Cleveland
Richardson, M. Phyllis	St. Luke's Hospital	Cleveland
Romito, Mrs. Florence M.	University Hospitals	Cleveland
Rose, Winifred	Cleveland Clinic Hospital	Cleveland
Roth, Mary Elizabeth	St. Elizabeth's Hospital	Dayton
Rothansky, Anna M.	St. Luke's Hospital	Cleveland
Roy, Lillian B.	City Hospital	Cleveland
Russ, Ann L.	St. Elizabeth's Hospital	Youngstown
Sr. M. Benignus Leahy	Mercy Hospital	Hamilton
Sr. John Edward Kaiser	Good Samaritan Hospital	Cincinnati
Sr. M. John Geierman	Mercy Hospital	Toledo
Sr. M. Matthew Regan	Good Samaritan Hospital	Cincinnati
Sauers, Mildred*	City Hospital	Cleveland
Schaefer, Mrs. Ruth E.	333 Cincinnati St.	Dayton
Sloat, Mildred	Mt. Carmel Hospital	Columbus
Stevens, Alcey H.	Youngstown Hosp. S. S. Unit	Youngstown
Stevens, Mrs. Frances L.	Good Samaritan Hospital	Dayton
Stewart, Romaine M.	Peoples' Hospital	Akron
Stillman, Mrs. Irene M.	7618 Dorothy Ave.	Parma
Taylor, Jeanette	Union Hospital	Dover
Terry, Ann	St. Vincent Charity Hospital	Cleveland
Trasha, Estelle T.	St. Thomas Hospital	Akron
Van Arsdale, Mrs. Myra	1204 Warren Road	Lakewood
Walker, Marjory H.	Mt. Sinai Hospital	Cleveland
Walters, Martha A.	Mt. Sinai Hospital	Cleveland
Ware, Mrs. Mary A. Life Memb. Am. Ass'n	Children's Hospital	Cincinnati
Warren, Helen V.	Union Hospital	Dover
Weber, Lillian	Glenville Hospital	Cleveland
Wilkes, Vernie M.	664 N. Park St.	Columbus
William, Carolyn	Good Samaritan Hospital	Cincinnati
Wise, Mrs. Leila P.	St. Elizabeth's Hospital	Dayton
Yoakam, Myrtle L.***		Homer

OKLAHOMA

Bennett, Mrs. Dorothy	c/o Lt. L. R. Bennett, Hdq. Battery	Fort Sill
Culley, Irene	Nurses' Quarters	Fort Sill
Diefenderfer, Dixie	Wesley Hospital	Oklahoma City
McCormack, Mrs. Grace	Masonic Hospital	Cherokee

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Pitt, Mrs. Beatrice**	Wesley Hospital	Oklahoma City
Smith, Eleanor	Wesley Hospital	Oklahoma City
Willhide, Mary	Talihina Sanatorium & Hosp.	Talihina
Wahl, Pollyanne	610 N. W. 9th	Oklahoma City
Willhide, Mary	Talihina Sanatorium and Hosp.	Talihina

OREGON

Anderson, Mrs. Kathryn M.	1225—28th Ave.	Milwaukie
Arnold, Dorothy L.	St. Mary's Hospital	Astoria
Atkinson, Alice E.	770 Broadway St.	Seaside
Barth, Mrs. Cora***	Columbia Hospital	Astoria
Bennett, Beulah	Oregon City Hospital	Oregon City
Berger, Hulda E.	Salem General Hospital	Salem
Brown, Avis M.	652 Franklin St.	Astoria
Brye, Olivia	2800 N. Commercial St.	Portland
Bunch, Mrs. Josephine*	4030 S. W. Condor Ave.	Portland
Butler, Hazel	Rt. 9, Box 411	Portland
Caraway, Olga L.***	Rt. 6, Box 231	Portland
Carter, Mrs. Hazel P.***	827 Willamette St.	Eugene
Carlile, Mrs. Clarissa J.	1909 S. W. Main	Portland
Coleman, Mrs. Marion R.	2533 N. W. Marshall	Portland
Darby, Merwyn***	2236 S. E. Salmon St.	Portland
Davis, Mary E.	Emanuel Hospital	Portland
Dempsey, Anne	Rt. 4, Box 190-B	Oregon City
Dimig, Mary K.	2800 N. Commercial	Portland
Doerr, Aimee	Eastern Oregon T. B. Hosp.	The Dallas
Dow, Mrs. Lenore Patton	Corvallis General Hospital	Corvallis
Durno, Evelyne B.	1913 Hillcrest Road	Medford
Fagan, Jeanne C.	Providence Hospital	Portland
Fast, Marie K.	2282 N. W. Northrup St.	Portland
Fisher, Kathryn	2282 N. W. Northrup St.	Portland
Floren, Marie E.	2800 N. Commercial St.	Portland
Gammon, Mrs. Edna C.	603 Pentland St.	The Dallas
Gibson, Mrs. Bessie***	Box 4071	Cornelius
Giddings, Margaret	6425 N. E. Alameda St.	Portland
Gremsgard, Mrs. Elinor R.	Coquille Hospital	Coquille
Grunefelder, Anna	Jones Apt. 5	Bend
Grunefelder, Emma E.	Jones Apt. 5	Bend
Harris, Mrs. Louise E.***	6325 S. E. Morrison St.	Portland
Holmes, Mrs. Amelia L.	Ashland Community Hospital	Ashland
Hynson, Mrs. Gene	Eugene Clinic Hospital	Eugene
Johnson, Katherine M.	North Pacific Dental College	Portland
Johnson, Mrs. Elizabeth D.	2005—28th St.	Milwaukie
Krumbein, Mrs. Mary G.	604 S. E. 52nd	Portland
Laird, Rosena	Route 1	Creswell
Morse, Mrs. Cecile L.***	Mid-Columbia Hospital	The Dallas
Morrison, Margaret	824 S. E. 69th Ave.	Portland
McDonald, Lillian M.	Salem General Hospital	Salem
McCorkle, Mrs. Clara M.	The Dallas Hospital	The Dallas
McElligott, Mabel	4705 N. E. Mallory	Portland
McGee, Agnes	2328 N. W. Everett	Portland
McKirdie, Mrs. Sylvia M.**	1831 S. W. Park Ave.	Portland
Morse, Mrs. Cecile L.***	Mid-Columbia Hospital	The Dallas
Nelson, Carrie L.	1925 S. E. 56th Ave.	Portland
O'Brien, Mrs. Daisy	Holmes Lane	Oregon City
Ogelsby, Fannie M.	Deaconess Hospital	Salem
Paulson, Ida C.	Oregon City Hospital	Oregon City
Pobochenko, Mrs. Ruth	5714 S. E. Belmont	Portland
Quinn, Mrs. Virginia	Box 700	Wolf Creek
Rees, Mrs. Marjorie	Rt. 1, Box 122	Beaverton

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Ruuska, Mrs. Alice C.	2015 N. W. Flanders	Portland
Sr. M. Lawrence Allen	St. Elizabeth's Hospital	Baker
Sr. Agnes de Boheme	St. Vincent's Hospital	Portland
Sr. Anna H. Duerksen	665 S. Winter St.	Salem
Sr. Edward Mary Furney	St. Vincent's Hospital	Portland
Sr. M. Baptisto Kosterman	St. Elizabeth's Hospital	Baker
Sr. M. Bernardo Morrish	Providence Hospital	Portland
Sr. Ottelia	St. Mary's Hospital	Astoria
Saults, Ferne Eleanore	Emanuel Hospital	Portland
Shaw, Mrs. Blossom Cragg	5033 Hoyt St.	Portland
Shelton, Florence T.	Rt. 8, Box 376, Canyon Drive	Portland
Schierman, Ruth	Portland Sanitarium	Portland
Spinning, Marion F.***	1715 N. E. 45th Ave.	Portland
Swearingen, Phyllis	Community Hospital	Medford
Svenson, Mrs. Emma Haug	3932 N. Albina St.	Portland
Tautfest, Frances	638 S. E. 60th Ave.	Portland
Thompson, Vera L.	P. O. Box 189	Eugene
Vormullen, Angela	St. Vincent's Hospital	Portland
Walker, Mrs. Fay	1804 S. E. 44th Ave.	Portland
Wilmot, Katurah M.	2126 S. E. Elliott St.	Portland
Wilhelm, Mrs. Hazel	3424 N. E. Tillamook St.	Portland
White, Mildred	Emanuel Hospital	Portland
Zell, Gladys H.	1195 N. 14th St.	Salem

PENNSYLVANIA

Abary, Edith E.	Harrisburg Hospital	Harrisburg
Andrews, Mabel I.	6205 Alder St.	Pittsburgh
Bader, Marie N.	York Hospital	York
Bancroft, Mrs. Agnes W.	Philadelphia General Hosp.	Philadelphia
Barclay, Mrs. Mary H. W.	63 Woodlawn Ave.	Uniontown
Barie, Elfreda T.	St. John's Hospital	Pittsburgh
Bauer, Clara	St. Joseph's Hospital	Reading
Beringer, Mrs. Mary L.	Rochester General Hospital	Rochester
Bettinger, Agnes E.	416 May St.	Pottstown
Bingel, Esther A.	St. Luke's Hospital	Bethlehem
Bissett, Mary E.	Conemaugh Valley Mem. Hosp.	Johnstown
Blum, Dorothy D.	Shadyside Hospital	Pittsburgh
Body, Mrs. Martha S.	Cemetery Rd.	W. Newton
Borgstrom, Hilma C.	Stetson Hospital	Philadelphia
Bothell, Gladys M.	Eye & Ear Hospital	Pittsburgh
Bowkley, Naomi E.	Nesbitt Memorial Hospital	Kingston
Bowser, Mrs. Alma Baker		Summerville
Boysen, Mrs. Ida B.	5344 Oakland St.	Philadelphia
Bransford, Mrs. Edna H.	3226 N. 15th St.	Philadelphia
Breakey, Nettie		Brookville
Brenlove, Mrs. Anna J.	2620 Winchester Drive	Pittsburgh
Briggs, Mrs. Marian R.	309 Mattison Ave.	Ambler
Breslin, Mae C.	Osteopathic Hospital	Philadelphia
Bucher, Sara K.	610 W. Lemon St.	Lancaster
Campbell, Clara B.	332—6th Ave.	McKeesport
Carlino, Mrs. Lois L.	102 Adler St.	Punxsutawney
Carpenter, Lena M.	1015 Wyoming Ave.	Exeter
Casey, Josephine D.	Fitzgerald-Mercy Hospital	Darby
Chapman, Mrs. Mildred K.	Metropolitan Hospital	Philadelphia
Ciszek, Florence S.	Locust Mt. Hospital	Shenandoah
Clancey, Eileen E.	2929 Knowlson Ave.	Pittsburgh
Clark, Sarah E.	Women's Hospital	Pittsburgh
Clarke, Gertrude R.	243 S. Madison Ave	Highland Park Delaware Co.
Goldsmith, Vernoll M.	Chambersburg Hospital	Chambersburg

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Colker, Esther	Presbyterian Hospital	Philadelphia
Connolly, Mrs. Pearl S.	1542 Easton Ave.	Bethlehem
Conner, Janice	Jewish Hospital	Philadelphia
Cool, Mary E.	West Penn Hospital	Pittsburgh
Costello, Ella T.	Montefiore Hospital	Pittsburgh
Crawley, Stella M.	637 Indiana Ave.	Glassport
Cunningham, Helen M.	Episcopal Hospital	Philadelphia
DaGrosa, Millie	"The Barclay," 18th & Rittenhouse Square	Philadelphia
Davis, Edith*	Allentown Hospital	Allentown
Davis, Elizabeth M.	Palmerton Hospital	Palmerton
Davis, Mrs. Hester V.	Germantown Hospital	Philadelphia
Davies, Marian	Moses Taylor Hospital	Scranton
Deily, Frances	Germantown Hospital	Philadelphia
Degutis, Margaret M.	Pottsville State Hospital	Pottsville
Dibert, Helen L.	Altoona Hospital	Altoona
Donavan, Rose G.	Mt. Sinai Hospital	Philadelphia
Dowling, Mrs. Ruth Cooke	700 Sheridan Ave.	Pittsburgh
Drehmer, Mrs. Mary H.	75 N. Center St.	Bradford
Ellsworth, Catherine C.	Williamsport Hospital	Williamsport
Emerick, Ida McK.	Rochester General Hospital	Rochester
Evans, Evelyn	Hahhemann Hospital	Scranton
Everett, Elsie M.	Jewish Hospital	Philadelphia
Foster, Anne B.	Citizens General Hospital	New Kensington
Freeland, Mrs. Eva W.	453 Bowlby St.	Waynesburg
Fulton, Faye L.	Methodist Episcopal Hospital	Philadelphia
Gagliardi, Katherine E.	Lankenau Hospital	Philadelphia
Garvey, Helen R.	St. Francis Hospital	Pittsburgh
Geesaman, Alta I.	Chestnut Hill Hospital	Philadelphia
Geist, Mrs. Nancy S.***	5302 Spruce St.	Philadelphia
Gegg, Agnes C.	Lancaster General Hospital	Lancaster
George, Rebekah W.	905 Beaver St.	Sewickley
Giffen, Margaret M.	Women's Hospital	Pittsburgh
Gigliotti, Yolanda F.	Montefiore Hospital	Pittsburgh
Gilmore, Ruth S.	Butler County Mem'l Hosp.	Butler
Glenn, Marie G.	Maple Ave. Hospital	Dubois
Glinz, Mary J.	Kensington Hospital	Philadelphia
Goettel, Iva B.	Box 22	Sutersville
Goodell, Mrs. Ruth L.***	921 Helen Ave.	Lancaster
Goodwin, Dorothy C.	Wilkes-Barre Gen'l Hospital	Wilkes-Barre
Grant, Anna K.	Presbyterian Hospital	Pittsburgh
Greaves, Elizabeth	1812 Spruce St.	Philadelphia
Grissinger, Mrs. Loretta A.	'Woodbine,' Route 53	Somerset
Guthrie, Mrs. Mary K.	741 Revere Rd.	Yeadon
Hagenbach, Beatrice	Rosenkrans Hospital	Stroudsburg
Hamilton, Mary K.	425 First Ave.	Altoona
Hammond, Mary B.	Lying-In Hospital	Philadelphia
Hammond, Mrs. Theresa A.	7536 E. Tulpehocken St.	Philadelphia
Harley, Mrs. Myrtle	119 North St.	Bloomsburg
Hartenstein, Mrs. Jessie M.	925 N. 63rd St.	Philadelphia
Hastings, Mildred E.	Graduate Hospital	Philadelphia
Hebert, Mrs. Ethelyn E.	208 N. 36th St.	Philadelphia
Hendricks, Martha L.	West Side Hospital	Scranton
Herr, Mary J.	Butler County Mem'l Hosp.	Butler
Heydt, Mrs. Rebecca M.	Pottstown Hospital	Pottstown
Hitz, Leta A.	Community Hospital	Kane
Hogg, Eva K.	R. D. No. 3, Wimmers Road	Lake Ariel
Hohnke, Mrs. Cleo B.***	Box 1583, Perry Square Sta.	Erie
Hoover, Clara M.	Germantown Hospital	Philadelphia
Hoover, Harriet A.	Geisinger Mem'l Hospital	Danville

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Houck, Edna I.	Philipsburgh State Hospital	Philipsburg
Hough, Loretta A.	Westmoreland Hospital	Greensburg
Hunter, Bessie F.	Mt. Sinai Hospital	Philadelphia
Hurd, Sara B.	Pennsylvania Hospital	Philadelphia
Igo, Ellen A.	Graduate Hospital	Philadelphia
Ilacqua, Mrs. Margaret	180 Green Lane, Roxborough	Philadelphia
Jacobs, Mrs. Grace H.	408 N. 11th St.	Philipsburg
Jarvis, Mary E.	Eye & Ear Hospital	Pittsburgh
Jenkins, Anna T.	State Hospital	Ashland
Johnson, Ruth A.	Abington Memorial Hospital	Abington
Jones, Katherine	Elizabeth Steel Magee Hosp.	Pittsburgh
Jones, Katherine E.	570 Carley Ave.	Sharon
Jones, Verona M.	Uniontown Hospital	Uniontown
Karns, Irene	McKeesport Hospital	McKeesport
Kasonic, Mary M.	Columbia Hospital	Wilkinsburg
Katterhenry, Matilda	Franklin Hospital	Franklin
Kauffman, A. Isabelle	Lancaster General Hospital	Lancaster
Kaufman, Mrs. A. H.***	2419—5th Ave.	Altoona
Keebler, Sarah S.	3523 Aspen St.	Philadelphia
Keller, Bessie M.***	836½ North 6th St.	Allentown
Kelly, Mrs. Alice D.	Mercy Hospital	Scranton
Kelly, Catherine E.	Eye & Ear Hospital	Pittsburgh
Kenney, Ellen E.	State Hospital	Nanticoke
Kimmel, Edith M.	Bryn Mawr Hospital	Bryn Mawr
King, Mrs. M. Elizabeth L.	7233 Charles St.	Philadelphia
King, Madeleine M.	848 Park Ave.	Meadville
Kissell, Esther M.	Harrisburg Hospital	Harrisburg
Knill, Margaret L.	Reading Hospital	Reading
Knipper, Margaret E.	St. Joseph's Hospital	Philadelphia
Kopec, Pauline A.	313 Anderson St.	Curwensville
Kramlich, R. Margaret	3804 Chestnut St.	Philadelphia
Krause, Helen C.	Temple University Hospital	Philadelphia
Kutz, Anna M.***	50 W. Main St.	Glen Lyon
Kehrli, Lillian K.	Robert Packer Hospital	Sayre
Lane, Margaret M.	Presbyterian Hospital	Philadelphia
Lansberry, Geraldine W.	Polyclinic Hospital	Harrisburg
Leidy, Mrs. Albertine R.	51 N. 40th St.	Philadelphia
Lewis, Hazel M.	Graduate Hospital	Philadelphia
Light, Dorothy O.	Harrisburg Hospital	Harrisburg
Lillig, Mary W.	558 N. 17th St.	Philadelphia
Linden, Christine E.	Pittston State Hospital	Pittston
Lindsay, Mrs. M. C.***	6515 Rising Sun Ave.	Philadelphia
Lorenzie, Della M.	Monongehela Hospital	Monongehela
Lucas, Clare B.	1203 Sycamore St.	Connellsville
Lucas, Clara E.	Memorial Hospital	Johnstown
Lutz, Bertha M.	6035 N. Broad St.	Philadelphia
Lynch, Mrs. Ruth Reigel	Frankford Hospital	Philadelphia
McClain, Mary C.	Mercy Hospital	Altoona
McCullough, Ann M.	Delaware County Hospital	Drexel Hill
MacCullough, Sylvia I.	3919 Palmetto St.	Philadelphia
McFate, Isabel	Jameson Mem'l Hospital	New Castle
McGeary, Mary V.	438 Maple St.	Jenkintown
McGoogan, Eleanor J.	Connellsville State Hospital	Connellsville
McIsaac, Kathryn M.	Columbia Hospital	Wilkinsburg
McLaughlin, Florence J.	Shadyside Hospital	Pittsburgh
McLaughlin, Lucille C.	Warren General Hospital	Warren
McManus, Margaret M.	Abington Memorial Hospital	Abington
McNertney, Doris	State Hospital	Shamokin
Machusak, Anne	109 S. Front St.	Harrisburg
Maffley, Mary C.	New Castle Hospital	New Castle

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Maguire, Sarah A.	St. Agnes Hospital	Philadelphia
Mansfield, Mary Dora	Allegheny General Hospital	Pittsburgh
Mauk, Mrs. Ruth S.	Elizabeth Steel Magee Hosp.	Pittsburgh
Margison, Mathilda M.	St. Francis Hospital	Pittsburgh
Marsic, Mary A.	New Castle Hospital	New Castle
Matter, Kate M.	320 N. Market St.	Lykens
Mayer, Amelia	Shadyside Hospital	Pittsburgh
Meighan, Regina M.	Wilkes-Barre Gen'l Hospital	Wilkes-Barre
Meszaras, Rose	R. F. D. No. 1	Hellertown
Mifflin, Mrs. Della L.	25 West Hinckley Ave.	Ridley Park
Millard, Elizabeth J.	Lancaster General Hospital	Lancaster
Miller, Emma A.	1540 Schuylkill Ave.	Reading
Miller, Mary E.	York Hospital	York
Miller, Zella C.	Jameson Mem'l Hospital	New Castle
Moes, Mrs. Anna H.	217 W. Sheridan Ave.	New Castle
Monske, Freda L.	Univ. of Penna. Hospital	Philadelphia
Montgomery, Mary L.	West Penna. Hospital	Pittsburgh
Moore, Rae E.	Valley Hospital	Sewickley
Morris, Mrs. Mildred M.	1118 E. State St.	Sharon
Morrison, Jessie M.	Chester Hospital	Chester
Morse, Mrs. Goldie Kohn	6236 N. Broad St.	Philadelphia
Mull, Anna M.	Allegheny Gen'l Hospital	Pittsburgh
Myers, Margaret	Williamsport Hospital	Williamsport
Neely, Mrs. Caroline M.	320 Elizabeth Ave.	East Pittsburgh
Newcomer, Margaret J.	St. Francis Hospital	Pittsburgh
Norwood, Katherine R.	Canonsburg General Hospital	Canonsburg
Nycum, Erma W.	Armstrong County Hospital	Kittanning
O'Hara, Marjorie E.	Mercy Hospital	Johnstown
O'Harra, Marian		Swiftwater
Oppenheim, Mrs. Esther S.	Jewish Hospital	Philadelphia
Page, Mrs. Julia E.	Chester County Hospital	West Chester
Passmore, Ruby G.	R. F. D. No. 1	Du Bois
Patterson, Mary A.	Bryn Mawr Hospital	Bryn Mawr
Perry, Mrs. Helen	Geisinger Memorial Hospital	Danville
Peterson, Esther E.	Chester County Hospital	West Chester
Petraitis, Martha C.	Elizabeth Steel Magee Hosp.	Pittsburgh
Pflieger, Bregetta F.	Mercy Hospital	Johnstown
Plowman, Katherine A.		Colonial Park
Pnellie, Lena M.		Dagus Mines
Ponesmith, Mrs. S. S.***	236 Walton St.	Lemoyne
Powell, Mrs. Beatrix L.	29 Bank St.	Bradford
Powell, Dora E.	Taylor Hospital	Ridley Park
Puett, Martha	2233 Adams St.	Natrona Heights
Rapp, Elizabeth***	2000 W. Girard Ave.	Philadelphia
Rau, Mary M.	Shelby Hospital	Ellwood City
Ray, Mary M.	Butler County Mem'l Hosp.	Butler
Redelberger, Edith K.	Mt. Sinai Hospital	Philadelphia
Reed, Mildred M.	Maple Ave. Hospital	DuBois
Richter, Leola M.	Presbyterian Hospital	Pittsburgh
Ritzert, Mildred	Eye & Ear Hospital	Pittsburgh
Roenbaugh, Mary A.	West Penn Hospital	Pittsburgh
Rogus, Helen	Centre County Hospital	Bellefonte
Rose, Anna Marie S.	St. Margaret's Mem'l Hosp.	Pittsburgh
Sr. M. Alacoque	St. Joseph's Hospital	Pittsburgh
Sr. M. Appollonia Schwartz	P. O. Box 118	Perrysville
Sr. M. Audry Wagner	St. Vincent's Hospital	Erie
Sr. M. Bonosa	Mt. Trexler T. B. Sanatorium	Limeport
Sr. Mary Clarence	Mercy Hospital	Altoona
Sr. M. Dacia, M.S.C.	Sacred Heart Hospital	Allentown

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Sr. Mary de Lellis, S.M.,	Misericordia Hospital	Philadelphia
Sr. Mary Grace King	Mercy Hospital	Johnstown
Sr. M. Lucian Gul	Nazareth Hospital	Philadelphia
Sr. Mary Laurencita Klelotka***	St. Joseph's Hospital	Reading
Sr. M. Ludgeris, M.S.C.	Sacred Heart Hospital	Norristown
Sr. M. Mercedes Haley	St. Francis Hospital	Pittsburgh
Sr. Mary Pulcheria	Sacred Heart Hospital	Allentown
Sr. M. Rosemary Balazek	Sacred Heart Hospital	Norristown
Sr. Marie Stephen	Pittsburgh Hospital	Pittsburgh
Sr. M. Theodefrida	A. C. Milliken Hospital	Pottsville
Sr. M. Theodore Hale	3339 McClure Ave.	Pittsburgh
Sr. M. Tigrida Poetter	Sacred Heart Hospital	Allentown
Salomon, Hilda R. Life Memb. Am. Ass'n	Jewish Hospital	Philadelphia
Schramm, Mrs. Naomi	1621—4th St.	New Brighton
Schwab, Florence	Temple University Hospital	Philadelphia
Scott, Lora E.	Robert Packer Hospital	Sayre
Semans, Laura E.	Robert Packer Hospital	Sayre
Sentner, Mary F.	Misericordia Hospital	Philadelphia
Sergeant, Hannah M.	505 Bridge St.	Johnsonburg
Shallenberger, Mrs. Eliz. B.	309 Bridge St.	New Cumberland
Shaughnessy, Helen C.	Doctors Hospital	Philadelphia
Sherlock, Winifred M.	Fitzgerald-Mercy Hospital	Darby
Shoemaker, Jane E.	Delaware County Hospital	Drexel Hill
Sinkler, Elsie B.	41 Summit St.	Philadelphia
Sisson, Daisy	St. Luke's Hospital	Bethlehem
Smith, Mrs. Myrtle***	3916 Beechwood Blvd.	Pittsburgh
South, Genevieve A.	Montefiore Hospital	Pittsburgh
Spangler, Grace L.	6012 N. Philip St.	Philadelphia
Stewart, Ida	Titusville Hospital	Titusville
Surick, Mrs. Bessye K.	1302 S. 5th St.	Philadelphia
Suter, Magdalene	Girard College Infirmary	Philadelphia
Taglieber, Mabel	54 N. Montgomery Ave.	Jeffersonville
Tash, Kathryn L.	523 Hampshire Rd., Drexel Park	Montgomery Co.
Tarsa, Ann	Misericordia Hospital	Philadelphia
Taylor, Edna M.	Suburban Hosp., Bellevue Sta.	Pittsburgh
Templeton, Jean E.	101 Center Ave.	Plymouth
Thomas, Anna	Wilkes-Barre General Hosp.	Wilkes-Barre
Thomas, Mrs. Sara Shipe	129 E. Edison Ave.	New Castle
Turner, Lillian M.	2517 Bowman Ave.	McKeesport
Ulshafer, Nellie M.	State Hospital	Hazleton
Ungerman, Florence E.	Shadyside Hospital	Pittsburgh
Van Aux, Caroline	Scranton State Hospital	Scranton
Vichulis, Gussie E.	Germantown Hospital	Philadelphia
Vogel, Adelinda A.	223 Grant Ave.	Millvale
Vogt, Adeline E.	Mercy Hospital	Pittsburgh
Wagaman, Ruth C.	Ridge Ave. & 3rd St.	McSherrystown
Wagner, Mrs. Esther S.	"The Chatham," 20th & Walnut Sts.	Philadelphia
Wagner, Florence E.	Pennsylvania Hospital	Philadelphia
Waldman, Mrs. Doris K.	State Hospital	Norristown
Walker, Dorothy E.	505 Ninth St.	Altoona
Walker, Mrs. Helen Y.**	1824 Wallace St.	Philadelphia
Waller, Mrs. Grace P.	Bloomsburg Hospital	Bloomsburg
Walton, Mary E.	1300 Murray Ave.	Pittsburgh
West, Louise	Abington Mem'l Hospital	Abington
Whisler, Edna M.***	826 Edgemont Ave.	Chester

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Whitman, Irene	Frankford Hospital	Philadelphia
Widmeyer, Mrs. Ruth***	220 Elm St., Edgewood 18	Pittsburgh
Wigmore, Mrs. Mary M.	1512 Evans Ave.	Prospect Park
Williams, Grace	Allegheny General Hospital	Pittsburgh
Windisch, Mrs. Elsa F.***	Marion Court Apts., 13th & Medro Ave.	Philadelphia
Wirl, Rosemary	Allegheny General Hospital	Pittsburgh
Wood, Mrs. Ruth L.	54 Grove Ave.	Flourtown
Wright, Dorothy E.	Mt. Sinai Hospital	Philadelphia
Yerger, M. Sylvania	Miners Hospital	Spangler
Yocum, Mrs. Florence M.	365 Mt. Vernon St.	Lansdale
Youngman, Thelma***	115 W. Market St.	Danville
Zack, Emily E.	St. Joseph's Hospital	Reading
Zeiser, Katherine	Greene County Mem'l Hosp.	Waynesburg
Zellfelder, Marie	6422 Norwood St.	Philadelphia
Zimmer, Martha G.	C. H. Buhl Hospital	Sharon

RHODE ISLAND

Hawkins, Mrs. Marjorie H.	R. D.	Wickford

*SOUTH CAROLINA

Adcock, Alice	Station Hospital	Fort Jackson
Arndt, Helen E.	Columbia Hospital	Columbia
Barnes, Hattie M.	U. S. Naval Hospital	Charleston
Beidenmiller, Myrtle E.	Berkeley Co. Hospital	Moncks Corner
Card, Jennie A.	Baker Mem'l Hospital	Charleston
Cotten, Mrs. Eliza H.	239 Calhoun St.	Charleston
Donnan, Jane	2813 Wilson St.	Columbia
Dunham, Marguerite	York County Hospital	Rock Hill
Hearn, Mrs. Ada I.***	McDaniel Heights Apts.	Greenville
Hinnant, Mary F.	1427 Pickens St.	Columbia
Lunsford, Sara K.	Spartanburg Gen'l Hospital	Spartanburg
Meyer, Annie J.	279 Meeting St.	Charleston
O'Leary, Glena B.	217-A Calhoun St.	Charleston
Pacini, F. Ruth	Station Hospital	Fort Jackson
Pepe, Mrs. Gertie B.	Columbia Hospital	Columbia
Sr. M. John Halter***	Providence Hospital	Columbia
Smith, Thelma P.	Conway Hospital	Conway
Verner, Lucy P.	1419 Bull St.	Columbia
Weidman, Beatrice A.	Roper Hospital	Charleston
Wells, Mrs. Jewell R.	Roper Hospital	Charleston

SOUTH DAKOTA

Cunningham, Helen R.	Sioux Valley Hospital	Sioux Falls
Hanson, Ruth L.	Black Hills Gen'l Hosp.	Rapid City
Haffey, Mary R.	Methodist Hospital	Mitchell
Hoffman, Edna L.	25½ E. Kemp St.	Watertown
Martinsen, Mabel	Methodist State Hospital	Mitchell
Reagan, Genevieve	Sioux Valley Hospital	Sioux Falls
Richards, Alice	1125 Junction Ave.	Sturgis
Sr. M. Camillus Shealy	McKennan Hospital	Sioux Falls
Sr. Mary Celine***	St. Joseph's Hospital	Mitchell
Sr. M. Donata Bentele	Sacred Heart Hospital	Yankton
Sr. M. Elizabeth Seman	St. John's Hospital	Rapid City
Sr. M. Eulalia	St. Joseph's Hospital	Mitchell
Sr. M. Laurentia Schendt	St. Joseph's Hospital	Deadwood
Sr. Mary Luke	McKennon Hospital	Sioux Falls
Sr. M. Magna Henggeler	St. Mary's Hospital	Pierre
Sr. M. Rose McCormick	St. Luke's Hospital	Aberdeen

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Sr. M. Simon Oberembt	St. Mary's Hospital	Pierre
Sr. Mary William***	St. Joseph Hospital	Mitchell
Skinner, Mrs. Marjory M.	404 Mine St.	Lead

TENNESSEE

Allen, Lola	St. Joseph Hospital	Memphis
Baxter, Ethel	211 Kenilworth	Memphis
Beddow, Anne M.	St. Joseph Hospital	Memphis
Bryant, Nettie M.	1634 Euclid Ave.	Memphis
Crabtree, Willie Carr	500 W. 7th St.	Columbia
Creson, Mrs. Mazie C.	2221 Central	Memphis
Dill, Lelia Bennette	Vanderbilt Univ. Hospital	Nashville
Donk, Louise deVries	Vanderbilt Univ. Hospital	Nashville
English, Thelma H.	Protestant Hospital	Nashville
Farrar, Mrs. Zelle McC.	St. Joseph Hospital	Memphis
Fink, Jewelle C.	899 Madison Ave.	Memphis
Gaffeney, Mrs. Lucy B.	St. Joseph Hospital	Memphis
Gilmore, Betty J.	Gartly-Ramsay Hospital	Memphis
Halford, Louise Green	Woodmont Terrace, Apt. E-2	Nashville
Hawne, Ruth E.*	1317 Eastmoreland Ave.	Memphis
Hill, Mrs. Lucille Kemp	28 N. Waldran, Apt. 3	Memphis
Hobson, Mrs. Archie D.	Box 1465	Knoxville
Holcomb, Mrs. Bess Turner	Methodist Hospital	Memphis
Holland, Zelia	3540 Powell	Memphis
Houser, Mrs. Jennie	899 Madison Ave.	Memphis
Jarrell, Frankie Beatrice	705—19th St., Apt. 4	Knoxville
Johnson, Arline S.	Methodist Hospital	Memphis
Jones, Mrs. Isabel M.***		Bruceton
Karlovic, Mrs. Mary S.	325—22nd Ave., No.	Nashville
Kittle, Nancy	1139 Madison Ave.	Memphis
Kyker, Charlotte Kathleen	402 Medical Arts	Knoxville
Landis, Dorothy R.	Station Hospital	Camp Forrest
Little, Alice	Methodist Hospital	Memphis
McAfee, Harriet	Haywood County Mem'l Hosp.	Brownsville
McCue, Mary Ellen	Baptist Hospital	Memphis
McElroy, Mary Jean	1914 Grand Ave.	Nashville
McKnelly, Amanda Eliz.	Baptist Memorial Hospital	Memphis
McNeill, Lillie	1909 West End Ave., Apt. 1	Nashville
Mehearg, Ida	Nashville General Hospital	Nashville
Miller, Thelma Mae	1901 West End Ave., Apt. 3	Nashville
Milligan, Mary	Colonial Apts. No. 3	Nashville
O'Brien, Jean	869 Madison Ave.	Memphis
Perkinson, Mrs. Gertrude	2109 State St.	Nashville
Reeve, Etoile	Vanderbilt Univ. Hospital	Nashville
Rossi, Mrs. Antoinette L.	230 Cochran	Memphis
Sr. Estelle Helwick	St. Thomas Hospital	Nashville
Schwab, Mrs. Dorothy E. W.	Rutledge Pike, Rt. 5	Knoxville
Scott, Mrs. Jewelle M.	251 S. Camilla, Apt. 9	Memphis
Seip, Elsie Irene	Chamberlain Memorial Hosp.	Rockwood
Sellers, Ethel	1139 Madison Ave., No. 5	Memphis
Sims, Alice M.	1301 Eastmoreland	Memphis
Skeen, Alberta M.	Methodist Hospital	Memphis
Stewart, Frances V.	Protestant Hospital	Nashville
Stitt, Mrs. Sybil	Nashville General Hospital	Nashville
Sullivan, Mrs. Alberta K.	48 S. Diana	Memphis
Trail, Mrs. Theresa W.**	615 N. Willett St.	Memphis
Troster, Mrs. Gertrude A.	654 Stonewall St.	Memphis
Underwood, Dolly	St. Joseph Hospital	Memphis
Vermillion, Mrs. Esta M.	Holston Valley Comm'ty Hosp.	Kingsport
Vickers, Hattie	Vanderbilt Univ. Hospital	Nashville

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Walker, Mrs. Mary R.	Box 955	Madison
Waller, Sarah Hall	705—19th St, Apt. 4	Knoxville
White, Mrs. Waverlyn W.	Baptist Hospital	Memphis
Williams, Jennie Florence	369 Marianna	Memphis

TEXAS

Anderson, Adelia M.	1312 Main	Lubbock
Armstrong, Jessie	R. R. 2	Corsicana
Baker, Mrs. Gertrude M.	Shannon Memorial Hospital	San Angelo
Baker, Mamie L.	Sweetwater Hospital	Sweetwater
Baker, Sedley Gayle	260 Post Ave.	San Antonio
Barker, Mrs. Ola O.***	Box 2203	Ft. Worth
Beach, Mrs. Emma B.	500 W. Steadman St.	Sherman
Behrns, Mrs. Ida M.	Heights Hospital	Houston
Bevers, Mrs. Avis McK.	2219 Carnes	Dallas
Bieber, Marjorie	Scott White Hospital	Temple
Bomen, Mrs. Eunice	Wilson N. Jones Hospital	Sherman
Bovey, Laura M.	Jefferson Davis Hospital	Houston
Buckner, Mrs. Margaret	1901 St. Louis St.	Ft. Worth
Cable, Marcella A.	Hermann Hospital	Houston
Childress, Mrs. Fern A.***	1507 Beckham Place	Ft. Worth
Childress, Mrs. Jack K.**	716 W. Ave. G	Temple
Colyer, Opal	Hillcrest Memorial Hospital	Waco
Compton, Mrs. Jessie L.	702 Winston St.	Dallas
Cotten, Dorothy	2508 Shelby	Dallas
Cox, Florence	1401 East Ave.	Austin
Cross, Mary E.		Atlanta
Dougherty, Gertrude S.	Station Hospital	Ft. Sam Houston
Davidson, Mrs. Nellie S.	410 E. Harris	San Angelo
Davis, Clara F.	c/o A. B. Davis	Hatchell
Davison, Marjory J.	St. Ann Hospital	Abilene
DeLay, Martha	Paris Sanitarium	Paris
Denison, Grace	1619—9th St.	Wichita Falls
Didner, Helen	1804 Algonquin	Waco
Drucke, Cliffie B.	City Hospital	Waco
Duffield, Caroline I.	All Saints Hospital	Ft. Worth
Dumas, F. Ellen	Graham Hospital	Graham
Eull, Mrs. Myrtle R.	814 Oak St.	Houston
Franson, Delphine E.	Parkland Hospital	Dallas
Frugé, Allie Mae	John Sealy Hospital	Galveston
Futch, Mrs. Virginia S.	Western Clinic Hospital	Midland
Gandy, Hellon	Route No. 41	Temple
Gatton, Mrs. Grace R.	424 S. Ballinger	Ft. Worth
Graham, Mrs. Estelle	1214 Presidio St., W.	Ft. Worth
Haas, Minnie V.*	1121 E. Mulkey	Ft. Worth
Hackworth, Winnifred	1317 Pierce St.	Houston
Harrist, Mrs. M. E.***	1907—22nd St.	Lubbock
Hatfield, Mrs. Louise	1215 W. 10th	Amarillo
Headlee, Mrs. Marie S.	Box 3112	Odessa
Hoadley, Dorothy M.	Methodist Hospital	Ft. Worth
Hoffman, Laura	1408 Pa. Ave.	Ft. Worth
Holland, Virginia***	2307—6th Ave.	Ft. Worth
Houle, Eugenie L.	1624 Frederick	Ft. Worth
Hubbert, Mrs. Virginia	Lubbock General Hospital	Lubbock
Jarman, Vesta P.	Box 546	Robstown
Jenning, Elizabeth	Route 2, 854 W. Fronton	Brownsville
Kelly, Mildred R.	Station Hospital	Ft. Bliss
Kemp, Clovis J.	Station Hospital, Box 82	Ft. Sam Houston
Kennedy, Mrs. Vergie R.	Hemlock Memorial Hospital	Abilene
Kibler, Vanda L.	Harris Memorial Hospital	Ft. Worth

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King, Mary F.	2530 College	Ft. Worth
Kirven, Sarah	120 Southland Ave.	Marlin
Knebel, Viola E.	All Saints Hospital	Ft. Worth
Knight, Sallie F.	Baylor University Hospital	Dallas
Kuttler, Sallie D.	803 Lamar	Amarillo
Kosanke, Allie	2219 Carnes	Dallas
Lackey, Charlotte	1502 Hall St.	Dallas
Lamb, O. Joyce		Pecan Gap
Lancaster, Mrs. Katherine	Providence Hospital	Waco
Larsen, Mrs. Sylvia J.***	Box 973	Pampa
Laughlin, Doris H.	Southwestern General Hosp.	El Paso
Layer, Virginia L.	330 Drake	San Antonio
Lewis, Mrs. Nancy A.	P. O. Box 1822	El Paso
Loftus, Julia D.	South Plains Hospital	Amherst
Long, Mildred E.	Box 670	Vernon
Long, Perle E.	Texas Scottish Rite Hospital	Dallas
McBride, Mrs. Thelma	Parkland Hospital	Dallas
McCrumb, Sue W.	c/o C. F. Barnhill	Silsbee
McDonald, Edythe	2308—17th St.	Lubbock
McLeod, Catherine S.	McKinney City Hospital	McKinney
Manson, Mrs. V. A.***	Med. Detach., 265 C. A.	Ft. Crockett
Marsh, Willie F.	Methodist Hospital	Dallas
Marshall, Buelah F.	1300—8th St.	Wichita Falls
Mercer, Ora L.	3359 Parkridge	Ft. Worth
Moriarty, Vera	621 N. Hill	Dallas
Morris, Maude P.	Shannon Hospital	San Angelo
Morriss, Mrs. Catherine F.	1300—8th St.	Wichita Falls
Morse, Mrs. Lydia C.	811 Calhoun St.	Houston
Nix, Viola R.	Methodist Hospital	Houston
O'Conner, Mrs. Inez	Wilson N. Jones Hospital	Sherman
Pate, Mrs. John W.	209 Young St.	Longview
Paulson, Dorothy E.	Baylor Hospital	Dallas
Rausch, Sara	U. S. Marine Hospital	Galveston
Riek, Lucia L.	4934 Tremont	Dallas
Scallan, Agatha	St. Joseph Maternity Hospital	Houston
Shievers, Mrs. Cassie D.	Red River Co. Hospital	Clarksville
Sims, Ninetta	Waxahachie Hospital	Waxahachie
Siurua, Esther E.	501 S. Main	Quanah
Singer, Mildred H.	Clinic Hospital	San Angelo
Smith, Mrs. Viola B.	3444 Amherst	Dallas
Snyder, Mrs. Eva B.	713 W. Ave. G	Temple
Sterling, Mrs. Rena F.	1102 W. Howell St.	McKinney
Strange, Beulah	9103 Angora St.	Dallas
Teague, Madge	3509 Fairmount, Apt. 2	Dallas
Thomas, Winnie	Markham McRee Hospital	Longview
Thompson, Rosemary	L. Box 373	Waxahachie
Thompson, Mrs. Velma	3306 Junius St.	Dallas
Tuley, Mrs. Gertrude B.	2811 Hemphill	Ft. Worth
Tomme, Mrs. Wincy	10 Riverside	Port Neches
Voight, E. Thelma	5445 Goodwin	Dallas
Warren, Grace	704 Highland Ave.	Houston
Webb, Alma	Methodist Hospital	Dallas
Willard, Dora L.	Stephenville Hospital	Stephenville
Williams, Mrs. Cecil E.	4230 Munger Ave.	Dallas
Wilson, Mrs. Hulda J.	Box 17	Wink
Wratton, Fola M.	Box 631	Robstown
Wright, Mrs. Jean V.	Box 964	Amarillo
Young, Mrs. Ruth P.	4623 Belclaire	Dallas
Zeig, Mary	St. Mary's Hospital	Port Arthur

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UTAH

Bergstrom, Mrs. Sarah H.	St. Mark's Hospital	Salt Lake City
Bigler, Asenath	Latter Day Saints Hospital	Salt Lake City
Blade, Louise	Salt Lake General Hospital	Salt Lake City
Case, Mrs. Loretta F.*	436 H. Street	Salt Lake City
Clayton, Mrs. Jeane M.	Holy Cross Hospital	Salt Lake City
Garrison, Mayme C.**	Latter Day Saints Hospital	Salt Lake City
Hall, Anna J.	St. Mark's Hospital	Salt Lake City
Hardes, Mary Liona	Price City Hospital	Price
Hood, Gladys	Utah Valley Hospital	Provo
McGillivray, Mrs. Lola S.	Thos. Dee Memorial Hospital	Ogden
Mulvane, Lucile	(temporary)	Robinson, Ill.
Rutledge, Mrs. Ida H.		Kaysville
Wangsgard, Helen	L. D. S. Hospital	Salt Lake City

VERMONT

Northrup, Margaretta M.	Springfield Hospital	Springfield
Richards, Maude E.	Brattleboro Mem'l Hospital	Brattleboro
Sr. Margaret Nolin	Bishop de Goesbriand Hosp.	Burlington

VIRGINIA

Addleman, Ollie M.	Medical College of Va. Hosp.	Richmond
Ailstock, Harriet V.	Parrish Memorial Hospital	Portsmouth
Allison, Beatrice	Pulaski Hospital	Pulaski
Bakes, Cordelia B.	Norfolk General Hospital	Norfolk
Beebe, Mary A.	Medical College of Va. Hosp.	Richmond
Behnke, Lucille R.	213 Wilkes St.	Alexandria
Brandon, Margaret	Retreat for the Sick Hospital	Richmond
Cain, Mrs. Leota B.	Clinch Valley Hospital	Richlands
Cook, Mrs. Carrie Mays	University of Virginia Hosp.	Charlottesville
Copeland, Vera G.	St. Elizabeth Hospital	Richmond
Cox, Mrs. Marion A.	Riverside Hospital	Newport News
Dalton, Mrs. Helen M.		Holland
Doss, Mrs. Julian B.	The Green Oak	Pen Hook
Dowd, Nova Jane	University of Virginia Hosp.	Charlottesville
Farrell, Agnes M.	St. Luke's Hospital	Richmond
Felgendrager, Rosena J.	Memorial Hospital	Danville
Forgie, Nancy F.	Marshall Lodge Mem'l Hosp.	Lynchburg
Gardner, Martha E.	Lewis Gale Hospital	Roanoke
Gaymer, Dorothy	Stuart Circle Hospital	Richmond
Gills, Mary F.	Petersburg Hospital	Petersburg
Hall, Esther H.	Nassawadox Mem'l Hospital	Nassawadox
Hemsley, Ada	Elizabeth Buxton Hospital	Newport News
Hudgins, Mrs. Clara A.	Leigh Memorial Hospital	Norfolk
Irving, Mrs. Geneva F.	Southside Community Hosp.	Farmville
Jensen, Emilie K.	Station Hospital	Fort Monroe
Lambert, Lillian	U. S. Marine Hospital	Norfolk
Lane, Clare B.	1208 Llewelyn Ave.	Norfolk
Lawhorne, Elsie V.**	Virginia Baptist Hospital	Lynchburg
Leftwich, Mrs. Gladys	Jefferson Hospital	Roanoke
Lewis, Mrs. Frances***	610 Powell St.	Crewe
Luttring, Mrs. Ruth	Norfolk General Hospital	Norfolk
MacGregor, Elizabeth N.	1246 Rodgers St.	South Norfolk
McGehee, Nancy Gordon	Medical College of Va. Hosp.	Richmond
Marberry, Eunice V.	Jefferson Hospital	Roanoke
Massie, Cora E.	Grace Hospital	Richmond
Medlin, Mrs. Addie F.	St. Vincent's Hospital	Norfolk
Morrison, Mildred E.	Alexandria Hospital	Alexandria
Mowery, Betty E.	Alexandria Hospital	Alexandria
Navarro, Mrs. Elizabeth D.	Norfolk General Hospital	Norfolk

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Nelson, Bernice Agnes	Dixie Hospital	Hampton
Noll, Katherine B.	Station Hospital Unit 1326	Camp Lee
Ogle, Cora Lee	St. Alban's Sanatorium	Radford
Pace, Lucyle M.		Camp Lee
Payne, Mrs. Minnie Freese	University of Virginia Hosp.	Charlottesville
Price, Mrs. Laura***	c/o J. H. Lloyd, Rt. 1, Box 576	Alexandria
Prince, Susan C.	University of Virginia Hosp.	Charlottesville
Riner, Essie F.	Shenandoah Hospital	Roanoke
Robinson, Mrs. Lorene L.	307 N. Boulevard	Richmond
Rudkin, Margaret F.	Johnston Memorial Hospital	Abingdon
Rush, Mrs. Martha N.	Winchester Memorial Hospital	Winchester
Sister Zoe Kelley	St. Vincent's Hospital	Norfolk
Scarce, Rosa B.	Riverside Hospital	Newport News
Schoch, Icie A.	Alexandria Hospital	Alexandria
Scott, Georgia C.*	Lewis Gale Hospital	Roanoke
Shiley, Marguerite B.	Martha Jefferson Hospital	Charlottesville
Shivers, Janie	Naval Hospital	Quantico
Simmons, Curlee E.	Danville Memorial Hospital	Danville
Smith, Mrs. Caleta H.	Lynchburg General Hospital	Lynchburg
Stack, Mrs. Elsa Koski***	805 S. Oak St.	Arlington
Swift, Roselma	Clinch Valley Clinic Hospital	Richlands
Thomas, Ann C.		Concord Depot
Weakley, Louise	Norfolk General Hospital	Norfolk
Wilson, Beatrice H.	Univ. of Virginia Hospital	Charlottesville
Whitmer, Nora	Marshall Lodge Mem'l Hosp.	Lynchburg

WASHINGTON

Allen, Mrs. Anna H.	410 — 6th St.	Bremerton
Anderson, Mrs. Louise S.	1901 South "G" St.	Tacoma
Anderson, Ruth A.	Tacoma General Hospital	Tacoma
Andrews, Pearl	Box 1846, R. 4	Everett
Beatty, Mildred Y.	401 N. Yakima Ave.	Tacoma
Borgardts, Mrs. Katherine	E. 1621 Everett St.	Spokane
Boudreau, Marion E.	1222 Summit Ave.	Seattle
Butler, Mrs. Mae D.	Sacred Heart Hospital	Spokane
Chapman, Sylvia M.	Tacoma General Hospital	Tacoma
Claude, Alice M.	507 Jamieson Bldg.	Spokane
Clayton, Mrs. Lillian B.	2814 Dover St.	Longview
Decker, Mrs. Elvina P.	Box 1683	Grand Coulee
Dorweiler, Mrs. Margaret	U. S. Marine Hospital	Seattle
Dow, Jean	Providence Hospital	Seattle
Downing, Ruth	Providence Hospital	Everett
Edin, Ruth M.	1101 — 17th Ave.	Seattle
Ellstrom, Edith	Swedish Hospital	Seattle
Erdahl, Esther M.	Station Hospital	Fort Lewis
Finney, Mrs. Thelma E.	1805 W. 11th St.	Spokane
Gamer, Mrs. Olive G.	St. Joseph's Hospital	Tacoma
Gilbert, Lorraine***	145 East 6th Ave.	Colville
Gill, Edyth M.	Pierce County Hospital	Tacoma
Gordon, Mabel	St. Joseph's Hospital	Tacoma
Gorsegner, Mrs. Helen N.	1211 S. Peabody St.	Port Angeles
Goulet, Mrs. Minnie	7707 First Ave. N. W.	Seattle
Grewer, Mrs. Florence	1516 20th St.	Longview
Hendricks, Mrs. Kathleen	Providence Hospital	Seattle
Hohensee, Gladys	211 W. 7th St.	Port Angeles
Houston, Mrs. Genevieve F.	Pierce County Hospital	Tacoma
Hunter, Nora J.	1323 N. "B" St.	Aberdeen
Kerrigan, Mrs. Kathleen	128 Harvard St.	Seattle
Kester, Mrs. Hilda H.***	329 S. Elm St.	Colville
Kilbride, Mrs. Rose A.	Rivercrest Hospital	Spokane

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Kimmett, Mrs. Lucille	General Hospital	Everett
Kindelan, Doli M.	Northern Pacific Hospital	Tacoma
Kenney, Mary M.	1101 — 17th Ave.	Seattle
Kurtz, Helen M.	202 S. Franklin St.	Wenatchee
Lambert, Mrs. Mae E.	415 Seneca St.	Seattle
Lamp, Mrs. Ray***		Harrington
Langlow, Mrs. Mona R.	3832 S. Fawcett St.	Tacoma
Layton, Mrs. Marguerite	S. 702 Lake St.	Colfax
La Valla, Margaret H.	St. Luke's Hospital	Bellingham
Lee, Martha B.	114 — 4th Ave.	Puyallup
Leonard, Mary E.	Paulson Med. & Dental Bldg.	Spokane
Lothspeich, Sabina	Bryant & Weisman Clinic	Colfax
Lynch, Eileen M.	Sacred Heart Hospital	Spokane
Maki, Saima M.	1715 East Cherry St.	Seattle
McCarthy, Margaret	4337 — 15th St., N. E.	Seattle
McEachren, Marianne	Puyallyp General Hospital	Puyallup
McNiece, Kathleen A.	Alamo Apts. No. 211	Bellingham
Meyer, Mrs. Della F.	Columbus Hospital	Seattle
Michel, Mrs. Veronica J.	1424 Belmont Ave.	Seattle
Miller, Lillian C.	711 Stimson Bldg.	Seattle
Monfredi, Della M.	214 S. 9th Ave.	Yakima
Morgan, Mrs. Marjorie***		American Lake
Muhle, Tena	2814 Dover St.	Longview
Murch, Edna V.	Box 28	Walla Walla
Nelson, Mrs. Hazel K.	305 West 18th St.	Vancouver
Nixon, Mrs. Dorothy G.	135-39 Fifteenth St. N.E.	Seattle
Olsen, Marguerite M.	1732 E. Hercy St.	Spokane
O'Neil, Charlotte V.	St. Luke's Hospital	Spokane
O'Neill, Rose**	1330 Boren Ave.	Seattle
Palmer, Mrs. Henrietta	Washington Minor Hospital	Tacoma
Peel, Netta	509 American Bank Bldg.	Seattle
Peterson, Helen H.	607 Medical & Dental Bldg.	Seattle
Peterson, Mrs. Mildred*	705 Broadway	Seattle
Pickard, Mrs. Leta M.	Route 8	Spokane
Presnell, Mrs. Agnes E.	Newport Community Hospital	Newport
Proulx, Mrs. Pauline	Providence Hospital	Seattle
Pursell, Emily S.	15 S. 9th Ave.	Yakima
Quirk, Catherine Pat	Piedmont Hotel	Seattle
Reard, Alice E.	Tacoma General Hospital	Tacoma
Reinert, Mrs. Clara T.	1017 — 6th St., Apt. A	Bremerton
Roberts, June C.	Sacred Heart Hospital	Spokane
Robinson, Mrs. Helen B.	St. Luke's Hospital	Spokane
Ross, Beulah A.	Virginia Mason Hospital	Seattle
Rowlands, Mrs. Nan	419 Cobb Bldg. Surgery	Seattle
Rudkin, Esther	Deaconess Hospital	Spokane
Rutt, Florence M.	7 South 18th Ave.	Yakima
Sr. Joseph of Arimathea	Providence Hospital	Seattle
Sr. M. Hercules St. Germ.	Providence Hospital	Seattle
Sr. Prov. of Sacred Heart	St. Elizabeth's Hospital	Yakima
Sr. M. Aloysia Desy	St. Ignatius Hospital	Colfax
Sr. M. Angela	St. Joseph's Hospital	Bellingham
Sr. M. Catherine Mott	St. Martin's Hospital	Tonasket
Sr. M. Christinia	Sacred Heart Hospital	Spokane
Sr. M. Clothilde Fencht	Lourdes Hospital	Pasco
Sr. M. Jacunda	St. Martin's Hospital	Tonasket
Sr. M. Sylvinia Beard	St. Joseph's Hospital	Tacoma
Sr. M. Vincent	St. Peter's Hospital	Olympia
Schatz, Eleanor	Washington Minor Hospital	Tacoma
Schneider, Mary A.	Swedish Hospital	Seattle
Scully, Elizabeth A.	Deaconess Hospital	Spokane
Searcy, Geraldine L.	Mason City Hospital	Mason City

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Segling, Mrs. Vernia L.	921 — 18th Ave.	Seattle
Sellers, Alice E.	East 2728 E. 18th Ave.	Spokane
Sharpless, Mrs. Evelyn J.	1732 McDouglass St.	Everett
Simonson, Mary	Northern Pacific Hospital	Tacoma
Sogaard, Gertrude	1222 Summit Ave.	Seattle
Sutton, Sidney L.	Swedish Hospital	Seattle
Teade, Edith	703 S. Washington St.	Spokane
Thomas, Audrey D.	Virginia Mason Hospital	Seattle
Ticknor, Mrs. Rose***	536 — 33rd Ave. S.	Seattle
Timmerman, Tena	20 Park St.	Walla Walla
Tramm, Mary E.	Deaconess Hospital	Spokane
Wagonhoffer, Mary G.	Cowlitz General Hospital	Longview
Wakefield, Mrs. Marie F.	511 W. 22nd St.	Spokane
Warnecke, Mrytle	911 Medical & Dental Bldg.	Seattle
Wigen, Ragna P.	St. Luke's Hospital	Spokane
Wihelmy, Mrs. Marcella A.	Rockwood Clinic	Spokane
Williams, Nora B.	Swedish Hospital	Seattle
Zeimantz, Helen M.	Sacred Heart Hospital	Spokane

WEST VIRGINIA

Blayney, Mrs. Amy C.	Ohio Valley Gen'l Hospital	Wheeling
Cooper, Helen C.	Stevens Clinic Hospital	Welch
Cooper, Mrs. Helen B.		Premier
Crawford, Allie M.	MacMillan Hospital	Charleston
Ellison, Mrs. Ruby N.	Oak Hill Hospital	Oak Hill
Gwinn, Lorene K.	Laird Mem'l Hospital	Montgomery
Hoffman, Mabel G.	Route 1	Germania
Isley, Nellie	Charleston Gen'l Hospital	Charleston
Kelly, Mrs. Pauline P.	Kanawha Valley Hospital	Charleston
Kristof, Mary Y.	Fairmont Gen'l Hospital	Fairmont
Lloyd, Mrs. Thelma T.	Huntington Mem'l Hospital	Huntington
McClellan, Edna P.	Stevens Clinic	Welch
Maye, Mary M.	Wheeling Hospital	Wheeling
Sr. M. Damiana Quack	St. Joseph's Hospital	Buckhannon
Sr. M. Richardis Schulte	St. Mary's Hospital	Huntington
Tierney, Mary A.	St. Mary's Hospital	Clarksburg
Weisman, Mrs. Rose S.		Parsons
White, Mary L.	McClung Hospital	Richwood
Whitney, Anne I.	Fairmont Gen'l Hospital	Fairmont
Wicker, Mrs. Thelma S.	Beckley Hospital	Beckley

WISCONSIN

Anderson, Elvy H.	Box 85	Granite Heights
Anderson, Myrtle E.	Memorial Hospital	Wausau
Bader, Helen E.	St. Luke's Hospital	Racine
Becker, Eda Eleanor	St. Alphonsus Hosp.	Pt. Washington
Blessin, Mary	Richland Center Hospital	Richland Center
Blickendorfer, Anna	2200 W. Kilbourn Ave.	Milwaukee
Brennan, Mrs. Florence	3669 E. Allerton Ave.	Cudahy
Bridenhagen, Leona	Bellin Mem'l Hospital	Green Bay
Bruce, Era	Walworth Co. Hospital	Elkhorn
Burgess, Florence L.	St. Anthony's Hospital	Milwaukee
Campbell, Julia I.**	Ev. Deaconess Hospital	Milwaukee
Cassidy, Mary C.	Kenosha Hospital	Kenosha
Clasen, Caroline F.	815 Aurora St.	Waukesha
Crowley, Mechtildes	Ev. Deaconess Hosp.	Milwaukee
Donovan, Mary	1628 W. Wisconsin Ave.	Milwaukee
Duncan, Mrs. Ruth	1010 Mound St.	Madison
Edwards, Esther	Wausau Mem'l Hospital	Wausau
Endthoff, Margaret M.	St. Claire Hospital	Monroe

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Esval, Sigrid	Luther Hospital	Eau Claire
Faraher, Mrs. Helen Clair	Madison Gen'l Hospital	Madison
Flasch, Ada Mary	St. Mary's Hospital	Milwaukee
Follmar, Ann	St. Joseph's Hospital	Milwaukee
Frusher, Mrs. Marie F.	Madison Gen'l Hospital	Madison
Garvin, Cecila Therese	St. Mary's Hospital	Madison
Grams, Charlotte L.	314 S. 9th St.	LaCrosse
Hepp, Mrs. Myrtle Chapin	St. Luke's Hospital	Milwaukee
Higgins, Mrs. Leona R.***	2213 Oakridge Ave.	Madison
Horrer, Alice L.	Columbia Hospital	Milwaukee
Jacke, Elizabeth E.	St. Michael's Hospital	Milwaukee
Johannes, Eleanor E.	St. Michael's Hospital	Steven's Point
Johnson, Mabel E.*	2633 North 7th St.	Sheboygan
Kraft, Marie	Methodist Hospital	Madison
Laughlin, Rose	Mt. Sinai Hospital	Milwaukee
McCord, Arlene	St. Luke's Hospital	Milwaukee
Magnin, Martha M.	St. Joseph's Hospital	Milwaukee
Maruska, Regina H.	230 W. Madison St.	Milwaukee
Mastalir, Anita	St. Mary's Hospital	Madison
Mayer, Marguerite E.	Marshfield Clinic	Marshfield
Metzke, Angeline	Theda Clark Mem'l Hospital	Neenah
Miller, Helen M.	Bellin Mem'l Hospital	Green Bay
Moberg, Hilda L.	Reedsburg Municipal Hospital	Reedsburg
Myers, Leone M.	Pember Nuzum Clinic	Janesville
Nelsen, Camilla M.	2563 N. Maryland Ave.	Milwaukee
Nye, Viola	St. Joseph's Hospital	Milwaukee
Opdale, Mrs. Jessie A.	146 E. Oak St.	Oshkosh
Phillips, Clara M.	Madison Gen'l Hospital	Madison
Riegel, Esther	Municipal Hospital	Shawano
Ries, Anna J.	St. Mary's Hospital	Rhinelander
Rhodes, Sue	Kenosha Hospital	Kenosha
Roderick, Ann Mary	St. Mary's Hospital	Racine
Sr. M. Agatha Gerber	St. Mary's Hospital	Rhinelander
Sr. M. Aletha Krupp	St. Nicholas Hospital	Sheboygan
Sr. M. Annunciata Maas	St. Vincent's Hospital	Green Bay
Sr. M. Baromea	St. Vincent's Hospital	Green Bay
Sr. M. Bernadette	St. Mary's Hospital	Racine
Sr. M. Bernadette Paluk	Holy Cross Hospital	Merrill
Sr. M. Bernardine Shaudis	St. Vincent's Hospital	Green Bay
Sr. M. Christine Wagoner	Holy Cross Hospital	Merrill
Sr. M. Clarissa Donovan	Langlade Co. Mem'l Hosp.	Antigo
Sr. M. Clementia Vogel	St. Elizabeth's	Appleton
Sr. M. Conradine Flasch	St. Joseph's Hospital	Milwaukee
Sr. M. Corona Pfaeffel	Sacred Heart Hospital	Tomahawk
Sr. Dolorita Clutter	Sacred Heart Hospital	Eau Claire
Sr. Eliud Alders	St. Joseph's Hospital	Beaver Dam
Sr. Eileen Furniss	St. Joseph's Hospital	Hartford
Sr. M. Emilia O'Farrell	St. Catherine's Hospital	Kenosha
Sr. Gregoria Gerding	St. Vincent's Hospital	Green Bay
Sr. Joseph Meaden	St. Joseph Hospital	Dodgeville
Sr. M. Lamberta Gaida	St. Nicholas Hospital	Sheboygan
Sr. M. Lea Hurler	St. Mary's Hospital	Wausau
Sr. M. Maxine Fricht	St. Nicholas Hospital	Sheboygan
Sr. M. Mercedes Francken	St. Elizabeth's Hospital	Appleton
Sr. M. Odila Diedrich	St. Mary's Hospital	Wausau
Sr. M. Philip Riede	St. Mary's Hospital	Ladysmith
Sr. M. Regina Moran	1022 N. 10th St.	Milwaukee
Sr. M. Reginald Wallig	St. Catherine's Hospital	Kenosha
Sr. M. Ruth Wendelgass	St. Mary's Hospital	Watertown
Sr. Bereniece Poupart	Misericordia Hospital	Milwaukee

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Sr. M. Stanislaus Hejna	St. Mary's Hospital	Ladysmith
Sr. Theonilla Henel	St. Mary's Hospital	Wausau
Sr. M. Vianney Nevins	St. Catherine's Hospital	Kenosha
Sr. M. Yvonne Jenn	St. Francis Hospital	LaCrosse
Sauer, Olga E.	Milwaukee Hospital	Milwaukee
Schroeder, Norma E.	Milwaukee Hospital	Milwaukee
Sorenson, Julia	Theda Clark Mem'l Hosp.	Neenah
Strang, Mrs. Helen M.	128 S. Park St.	Richland Center
Taylor, Mrs. Viola M.	2329 N. 34th St.	Milwaukee
Teske, Mrs. Grace-Mary	1034 S. 103rd St.	Milwaukee
Thielen, Leone A.	St. Mary's Hospital	Racine
Tinker, Emma C.	4544 W. Leon Terrace	Milwaukee
Ulbricht, Edna	Lutheran Hospital	Beaver Dam
Voller, Elizabeth	St. Elizabeth's Hospital	Appleton
Weiss, Rose Mary	2320 N. Lake Drive	Milwaukee
Welsh, Mrs. Margaret G.	Milwaukee Hospital	Milwaukee
Werking, Melva L.	St. Joseph's Hospital	Milwaukee
Woodrich, Mrs. Catherine	1709 E. Park Pl.	Milwaukee
Yanulis, Mary Ann	Municipal Hospital	Beloit

WYOMING

Brown, Mrs. Josephine C.	Box 74	Jackson
Carlos, Lillian	Box 367	Sheridan
Hambrick, Mrs. Gladys H.	Carbon Co. Mem'l Hospital	Rawlins
Henderson, Mrs. Allene N.	Box 844	Laramie

HAWAII

Anderson, Alice L.	Paia Hospital	Maui
Anderson, Isabelle M.	Wilcox Memorial Hospital	Lihue, Kauai
Barlow, Esther A.	Box 227	Kealakekua
Barton, Rose C.	Robt. W. Shingle Jr. Hospital	Hoolehua, Molokai
Black, Minnie M.	Tripler General Hospital	Honolulu
Clark, Mildred I.	Schofield Barracks Hospital	Honolulu
Conner, Pauline C.	Queen's Hospital	Honolulu
Davis, Mrs. Anna Koshel	Queen's Hospital	Honolulu
de Graaf, Hermine	Queen's Hospital	Honolulu
de Shazo, Laura E.	Hilo Memorial Hospital	Hilo
Dumenda, Julia M.	Hilo Memorial Hospital	Hilo
Eliasson, Hilda	Queen's Hospital	Honolulu
Grieder, Helen A.	Paia Hospital	Paia, Maui
Lamb, Mrs. Margaret W.	Kapiolani Mat. & Gyn. Hosp.	Honolulu
Littel, L. Rose	H. C. & S. Co. Hospital	Puunene
MacMillan, Marian	340 Royal Hawaiian Ave.	Honolulu
Mumper, Mrs. Mary Gordc	P. O. Box 85	Lanikai, Oahu
Murphy, Margaret	Kapiolani Hospital	Honolulu
Reames, Mary F.	1629 Clark St.	Honolulu
Sargeant, Florence V.	Aiea Plantation Hospital	Aiea, Oahu
Shaver, Mrs. Elvie M.	Naval Hospital	Pearl Harbor
Shurr, Marvel	Kula Sanatorium	Waiakoa, Maui
Sutcliffe, Roselyn	Queen's Hospital	Honolulu
Terwoord, Colette P.	St. Francis Hospital	Honolulu
Tyson, Dorothy H.	Schofield Barracks	Honolulu

CANADA

Anderson, Mrs. Jennie M.	Chipman Mem'l Hospital	St. Stephen, N.B.
Flewwelling, Isabella M.	33 Oliver St.	Guelph, Ont.
Greene, Thelma	858 Wyandotte, E.	Windsor, Ont.
Larkworthy, Mrs. E. M.	Box 100	New Hazelton, B.C.
Malloy, Muriel F.***		Union, Ont.

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Sister M. Azilda	St. Catherine's Hospital	Lac La Biche, Alb.
Sister Gertrude Lesink	Mundare General Hospital	Mundare, Alta.
Shaw, Mrs. Clara S.	Box 77	Penticton, B.C.

FOREIGN

Maduro, Esther R.	P. O. Box 683	Panama
Tebo, Mrs. Ruth Davidson	Fort de Lessups	Canal Zone
Yoskey, Julia A.	Colon Hospital	Cristobal, C. Z.
Bennett, Jane	c/o Std. Oil Co. of Venezuela, Caripito	Venezuela, S. A.
Ludwig, Laura M.	Lago Hospital	Aruba, N.W.I.
Wetzel, Grace	c/o Std. Oil Co.of N. J., San Nicholaas	Aruba, N.W.I.
Kehoe, Doris A.	Sternberg General Hospital	Manila, P. I.
Fish, Isabelle	Harriet Hess Hall	College, Alaska
Herin, Miriel	General Delivery	Ketchikan, Alaska
Graham, Mary	Churchill Hospital	Headington, Oxford, England
Phelps, Persis M.	Umri Mission Hospital	Yeotmal, Berar, India
Sawyer, Myra L.	W. China Union Univ. Hosp.	Chengtu, Szechwan, W. China

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Bateman, Mary C.
Boyer, Elizabeth
Clarke, Lula A.
Foto, Stephanie
McCuen, Olive A.
Scott, Margaret E.
Vezina, Clara A.
Zerhusen, Ann L.

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In Memoriam

Miss Sarah I. Brady, formerly anesthetist at St. Joseph's Hospital, Pittsburgh, passed away May 31, 1942. Miss Brady had been a member of the American Association of Nurse Anesthetists and the Pennsylvania Association since 1936.

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